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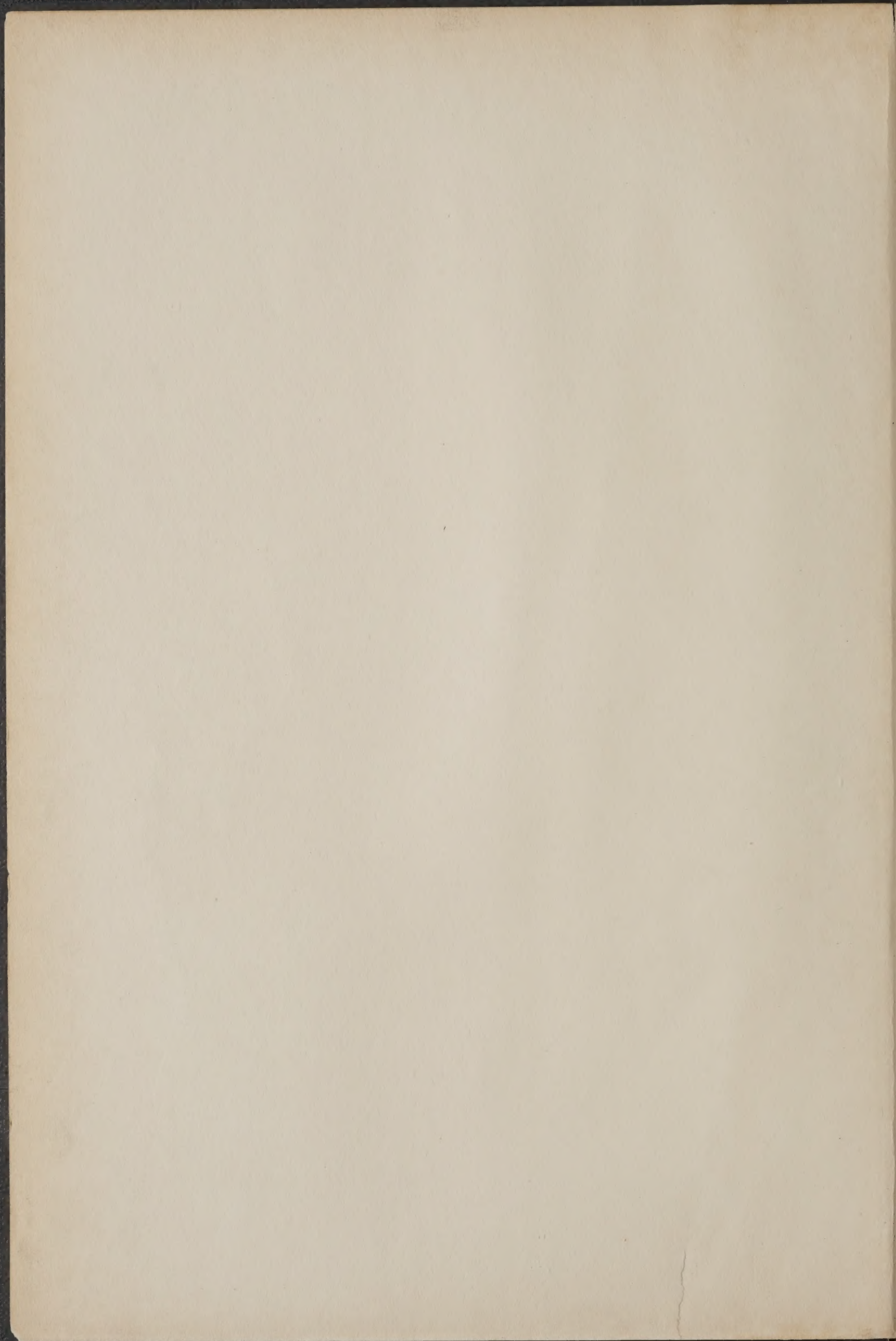
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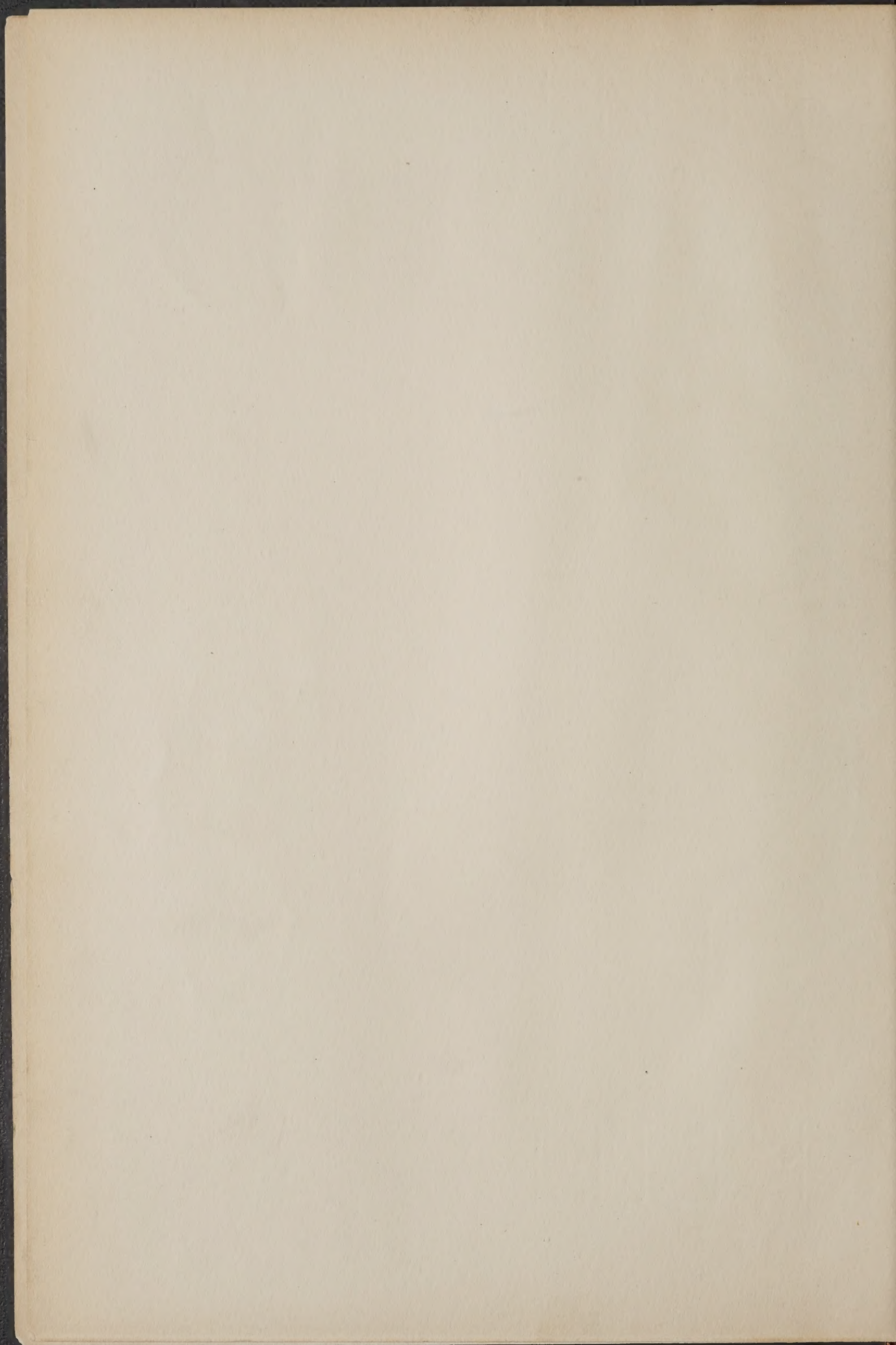














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- VI.—Old Houses, Ghent.
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- VIII.—Bruges from the Quai Vert.
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- XIV.—Soissons Cathedral: South Transept.
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- XVI.—Palais de Justice, Brussels: Grand Staircase.
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- XVII.—Lamp Stands, Candelabra, etc., July 1.
- XVIII.—Balconies and Balustrades, July 15.
- XIX.—Silver Plate and Sundry Specimens of Ornament, July 22.
- XX.—Chimney Feet, Lamps, Borders, Rosettes, Masks, and Sundry Ornaments, July 29.

- XXI.—Lamp Standards and Various Ornaments, Aug. 12.
- XXII.—Greek and Roman Meander or Fret Ornament, Aug. 19.
- XXIII.—Antique Masks for Theatres, etc., Aug. 26.
- XXIV.—Lamp Stands, Oct. 14.
- XXV.—Elevation, Plan, and Details of Cumberland Gates, Hyde Park, London, Oct. 21.

### CURRENT ARCHITECTURE—

- LXXI.—New Offices for the Burslem Mutual Burial Society, Burslem (Reginald T. Longden, Architect), July 8.
- LXXII.—Chester Housing Competition: Selected Designs (James and H. A. Dod, Architects), July 8.
- LXXIII.—LXXIV. New Law Courts, Cape Town: Public Entrance in Keerom Street; Facade to Victoria Street (W. Hawke, F.R.I.B.A., and W. N. McKinlay, Architects), July 29.
- LXXV.—LXXVI.—LXXVII.—New Picture House, Princes Street, Edinburgh (Atkinson and Alexander, Architects), Aug. 5.
- LXXVIII.—Cooling Towers, Central Station, Edinburgh (C. Stanley Peach, F.R.I.B.A., Architect), Aug. 12.
- LXXIX.—New Theatre, Torquay (Richardson and Gill, F.R.I.B.A.,

- and G. F. Moore, M.A., B.Sc., Architects), Aug. 19.
- LXXX.—The Academy, Hamilton (Alex. Cullen, Lochhead, and Brown, Architects), Sept. 2.
- LXXXI.—Canada House, Kingsway, London (Trehearne and Norman, Architects), Sept. 16.
- LXXXII.—New Offices for Christ's Hospital, Great Tower Street, London, E.C. (Sir Arthur Blomfield and Sons, Architects), Sept. 30.
- LXXXIII.—Sutton Valence School, Maidstone (Adams and Holden, F. and A.R.I.B.A., Architects), Oct. 14.
- LXXXIV.—Temporary Hospital, Wandsworth, S.W. (War Office), Oct. 14.
- LXXXV.—Church of St. Jude-on-the-Hill, Hampstead Garden Suburb, London, N.W. (E. L. Lutyens, A.R.A., F.R.I.B.A., Architect); Sanatorium, Great Barr Park, Birmingham (Gerald McMichael, A.R.I.B.A., Architect), Oct. 21.
- LXXXVI.—LXXXVII.—Phoenix Assurance Building, Glasgow (Campbell and Hislop, Architects), Oct. 28.
- LXXXVIII.—New Premises, Cockspur Street, London, S.W. (Mewes and Davis, Architects), Nov. 4.
- LXXXIX.—XC.—The "Aquitania": Detail of First-Class Smoking Room, Top of Main Staircase

- and G. F. Moore, M.A., B.Sc., Architects), Nov. 11.
- XCI.—New Building for Welsh Insurance Commission, etc., Cathays Park, Cardiff (R. J. Allison, A.R.I.B.A., Architect), Nov. 11.
- XCII.—Detail of Main Staircase Wall, ss. "Aquitania" (Mewes and Davis, Architects), Nov. 18.
- XCIII.—City Hall, Perth (H. E. Clifford and Lunan, Architects), Nov. 25.
- XCIV.—XCV.—New Choir Stalls and Organ Case, Dunblane Cathedral (Sir Robert Lorimer, A.R.S.A., F.R.I.B.A., Architect), plate, Dec. 2.
- XCVI.—Wesleyan Mission Hall, Stoke-on-Trent (Competition Design) (Reginald T. Longden, Architect), Dec. 16.

### FLORENTINE PALACES.

- I.—Façade of the Portico to the Uffizi (Vasari and A. Parigi, Architects), Dec. 2.
- II.—The Uffizi: View in Courtyard (G. Vasari, Architect), Dec. 9.
- III.—The Uffizi: Part Elevation to Courtyard (G. Vasari, Architect), Dec. 16.
- IV.—Courtyard of the Pitti (Bartolommeo Ammannati, Architect), Dec. 23.

### FRENCH EMPIRE FURNITURE—

- I.—Arm-chair in Grand Trianon, Versailles, Oct. 14.



I.—Settee in Grand Trianon, Versailles, Oct. 21.  
 II.—Arm-chair in Grand Trianon, Versailles, Oct. 28.  
 V.—Footstool in Grand Trianon, Versailles, Nov. 4.  
 I.—Chair in Grand Trianon, Versailles, Nov. 11.  
 I.—Chair in Grand Trianon, Versailles, Nov. 18.  
 II.—Arm-chair in Grand Trianon, Versailles, Nov. 25.  
 III.—Chair in Grand Trianon, Versailles, Dec. 2.  
 X.—Arm-chair in Grand Trianon, Versailles, Dec. 9.  
 I.—Arm-chair in Grand Trianon, Versailles, Dec. 16.  
 I.—Arm-chair in Grand Trianon, Versailles, Dec. 23.

#### DERN AMERICAN ARCHITECTURE.

X. X.—Graduate College of Princeton University, Princeton, N.J.; Upper Part of Cleveland Memorial Tower; View of Proctor Hall (Cram, Goodhue, and Ferguson, Architects), Sept. 9.  
 I.—The Maine Memorial, New York (H. Van Buren Magonigle, Architect; Attilio Piccirilli, Sculptor), Sept. 23.  
 II.—The Union Bank Buildings, Pittsburgh, P.A. (MacClure and Spahr, Architects), Sept. 23.

#### DERN DOMESTIC ARCHITECTURE.

XVII.—"Barcaple," Patterson, Newton Mearns, Glasgow (Watson and Salmond, F.R.I.B.A., Architects), July 1.  
 XVIII.—House at Denham, Bucks (Francis Brown, Architect), July 22.  
 XIX.—"Templehill," Hampstead: Detail of Front Entrance (C. H. B. Quennell, F.R.I.B.A., Architect), July 29.  
 XX.—The Lodge, Overtoun Park, Glasgow (Watson and Salmond, F.R.I.B.A., Architects), Aug. 5.  
 XXI.—Cottages, Burton Manor Estate, Neston (H. S. Goodhart-Rendel, Architect), Aug. 12.  
 XXII.—"The Chase," Churt, near Parnham, Surrey (Harold Falkner, Architect), Aug. 19.  
 XXIII.—Government Housing Scheme: Some Suggested Types, Aug. 19.  
 XXIV.—Cottages at Sherfield Manor, near Basingstoke, Hants (Fairfax B. Wade, F.R.I.B.A., Architect), Sept. 2.  
 XXV.—"Horncastle," East Grinstead: Garden Front (P. Morley Horder, F.R.I.B.A., Architect).  
 XXVI.—Additions to Redisham Hall, Beccles, Suffolk (H. M. Fletcher, F.R.I.B.A., Architect), Sept. 16.  
 XXVII.—Wemyss Hall, Cupar, Fifeshire (Sir Robert Lorimer, A.R.S.A., F.R.I.B.A., Architect), Sept. 23.  
 XXVIII., XXXIX.—Lodge, Elmstead Glade, Chislehurst, Kent (R. Frank Atkinson, F.R.I.B.A., Architect), Sept. 30.  
 L.—"Winterbourne," Edgbaston, Birmingham: Detail of Entrance Front (J. L. Ball, Architect), Oct. 7.  
 LI.—Wemyss Hall, Cupar, Fifeshire: The Hall (Sir Robert Lorimer, A.R.S.A., F.R.I.B.A., Architect), Oct. 7.  
 LII.—New Wing to Normanby Park, Lincolnshire (Walter H. Brierley, F.S.A., F.R.I.B.A., Architect), Oct. 21.  
 LIII.—Huntercombe Place, Henley-on-Thames (Oswald P. Milne, F.R.I.B.A., Architect), Nov. 4.  
 LIV.—House at Ealing: Details of Entrance Front (Robert Atkinson and George L. Alexander, A.A.R.I.B.A., Architects), Nov. 4.  
 LV.—Drawing-room, Ripsley House, Liphook, Surrey (Harold Falkner, Architect), Nov. 18.

XLVI.—Drawing-room Window, Tuesley Court, Godalming, Surrey (E. Guy Dawber, F.R.I.B.A., Architect), Nov. 25.  
 XLVII.—Labourers' Cottages, Tadworth, Surrey (C. H. B. Quennell, Architect), Dec. 2.  
 XLVIII.—House in Oxfordshire (C. R. Asbee, M.A., F.R.I.B.A., Architect), Dec. 16.  
 XLIX.—Drawing-room, No. 12, Smith Square, Westminster (Horace Field and Simmons, Architects), Dec. 23.  
 L.—Kerfield House, Knutsford, Cheshire: An Interior View (Percy Scott Worthington, M.A., F.R.I.B.A., Architect), Dec. 23.

#### MODERN SHOP FRONTS.

XII.—Butcher's Shop, 35, Leece Street, Liverpool (Campbell and Adams, Architects), Aug. 26.  
 XIII.—Confectioner's Shop, Haag Staat, The Hague, Holland, Sept. 2.  
 XIV.—Nos. 29-31, Cockspur Street, London, S.W. (Mewes and Davis, Architects), Nov. 4.  
 XV.—No. 50, Berners Street, London, W. (John Slater and Keith, F. and A.R.I.B.A., Architect), Nov. 11.  
 XVI.—No. 25, Renfield Street, Glasgow (Percy J. Westwood, A.R.I.B.A., Architect), Dec. 9.

#### MONUMENTAL ARCHITECTURE.

XXIV.—The Valhalla, Regensburg, Bavaria (Von Klenze, Architect), July 1.  
 XXV.—Royal Library, Munich (Von Klenze, Architect), July 8.  
 XXVI.—Concert Hall in Royal Theatre, Berlin (Karl Friedrich Schinkel, Architect), July 15.  
 XXVII.—The Old and the New Royal Palace, Brussels, Aug. 12.  
 XXVIII.—Royal Palace, The Hague, Holland, Aug. 26.  
 XXIX.—The Customs House, Glasgow (George Ledwall Taylor, Architect), Oct. 7.  
 XXX.—Ecole de Guerre, Paris, Oct. 14.  
 XXXI.—Base of Scott Monument, George Square, Glasgow, Nov. 18.  
 XXXII.—Huskisson Monument, St. James's Cemetery, Liverpool, Nov. 25.  
 XXXIII.—Ecole Militaire, Paris (J. A. Gabriel, Architect), Dec. 9.  
 XXXIV.—Monument in the Cemetery of Père Lachaise, Paris (Albert Bartholomé, Sculptor), Dec. 16.  
 XXXV.—Monument to the Victims of June, 1832, Père Lachaise Cemetery, Paris (H. Goddard, Architect), Dec. 23.  
 XXXVI.—Detail of Fountain, Rue de Grenelle, Paris (E. Bouchardon, Sculptor), Dec. 23.

#### NINETEENTH CENTURY FRENCH ARCHITECTURE.

IV., V., VI.—The Opera House, Paris: Details of Side Elevation and Plan at Ground Floor level (Charles Garnier, Architect), Sept. 16.  
 VII., VIII.—The Opera House, Paris: Details of Front and Rear Elevation (Charles Garnier, Architect), Sept. 23.  
 IX.—The Louvre, Paris: Detail of Façade Towards Place du Carrousel (H. M. Lefeuil, Architect), Sept. 30.  
 X., XI.—Palais de Justice, Paris: Screen in Front of Courtyard: Detail of Central Gates (J. L. Duc, Architect), Oct. 28.  
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#### PALAIS DE JUSTICE, BRUSSELS.

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(Owners' Schemes.)

|          |          |
|----------|----------|
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*(From Piranesi.)*



# THE ARCHITECTS' & BUILDERS' JOURNAL.

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VOLUME 40. No. 1017.

## EDITORIAL.

ABOUT such an important addition to the architecture of London as the proposed St. Paul's Bridge, the premiated designs for which are reproduced in the present issue, the most varying opinions can be held. It will doubtless be a relief to many people that no covered bridge obtained the first prize. At a time when the zeal for artistic novelty is so widespread, one trembles lest in the near future we shall have the glorious sweep of the Thames interrupted by some solid towering structure which will effectively destroy the grand scale of the river.

\* \* \* \* \*

If we once admit the covered bridge, the idea of the built-up bridge having shops each side of the gangway will most certainly be revived. Such a prospect possesses the most dangerous attractions, for it suggests the possibility that every new bridge may be made to bring in vast financial profits; and when this notion has once taken root, the task of those who wish to preserve intact the natural beauties of a city will be immensely increased.

\* \* \* \* \*

The built-up bridge appeals strongly to people of a romantic temperament. It strikes them as being something "picturesque," "quaint," and even "cosy." It is nevertheless utterly out of place in a great city. In rejecting it one is not violating any great traditions, for even in mediæval times it was considered to be a blunder and never an architectural triumph. Usually the shops were added piecemeal in accordance with no considered plan, for they owed their existence to the pressure of economic circumstances such as the high price of land, and would not have been permitted at all had there been a proper control of civic development.

\* \* \* \* \*

Æsthetically these structures were indefensible because their obvious duality of purpose made it quite impossible for them to be regarded as single units of composition. A bridge must be a bridge and nothing but a bridge, if it is to be invested with dignity. As for the covered gangway, it nearly always looks petty, for if the colonnade is made of a rational height it seems too flimsy to be the crowning feature of the great mass of masonry below.

\* \* \* \* \*

For the present we can congratulate ourselves that the winning design for St. Paul's Bridge is not characterised by the faults here mentioned. It is to be feared, however, that the dangerous experiments in bridge design which have been encouraged in recent years by the Soane Medallion and similar competitions, where candidates have been expressly invited by the assessors to make tall and complicated edifices out of viaducts, will some day have a most undesirable effect.

It was time we had a new philosophy of architecture, and Mr. Geoffrey Scott has given it to us in a very brilliant book, which he calls "The Architecture of Humanism." In it he seeks to trace the relationship between architecture in its twofold aspect—as a plastic problem, and as an appeal to the imagination. Structure, which is the technique by which the art of architecture is made possible, and, at the same time is part of its artistic content, is subject in the first case to mechanical laws purely, and in the second to psychological laws.

\* \* \* \* \*

"This double function, or double significance, of structure is the cause of our confusion. For the æsthetic efficacy of structure does not vary *pari passu* with structural technique. They stand in relation to one another, but not in a fixed relation. Some structural expedients, though valid technically, are not valid æsthetically, and *vice versa*," Mr. Scott finds that in the last resort great art is distinguished from what is merely clever "by a nobility that, in its final analysis, is moral."

\* \* \* \* \*

After a first rather hasty perusal, one is disposed to say that no more illuminating book on architecture has ever been published. Not that Mr. Scott has made any fresh discoveries. Rather he has succeeded in stating clearly and coherently the vague and uncoordinated notions about architecture that flit fitfully, casually, and elusively across the minds of most thinking men, who will thank him for a book of extraordinary penetration and power. Messrs. Constable are the publishers.

\* \* \* \* \*

It would seem as if the labour trouble which has given us all so much anxiety for well-nigh half a year were really on the point of fizzling out. It will be remembered that, in the third ballot, the masons voted in favour of accepting the proposals for peace. As a logical consequence, this society are understood to be willing to negotiate for a resumption of work; and a natural development of the situation thus created would be a succession of sectional conferences, with the very probable result of a speedy settlement. Altogether, the outlook is distinctly hopeful, and the disaster of a national lock-out seems much more remote than it did a fortnight ago.

\* \* \* \* \*

It is evident that there is yet a great deal to be done in what may be called the architectural decoration of railway carriages. The conditions are individual, but the customary treatment savours too much of the clumsy house joiner and the journeyman decorator. Railway carriage interiors, it would seem, are about in the same state that ships were in before architects became associated with their embellishment. The possibilities for effect are, of course, very small in



the case of trains as compared with those within the range of the ship designer, but an architect of ability could do a great deal to improve on the existing models.

The mouldings used, for example, are far too heavy in character, and the scheme of panelling is crude in the extreme, while the customary ceiling treatment recalls the worst efforts of the suburban builder. It was asked, when the idea was first put forward, what architects could possibly have to do with ships, but such a vessel as the *Aquitania* (the rooms on which were all designed and decorated by Messrs. Mewès and Davis) clearly proves that the innovation was fully merited, and something of the same sort might be accomplished on our Pullman and other trains *de luxe*.

Mr. Sydney Tatchell asks us to correct a slip of the pen that occurred in his letter to us in the R.I.B.A. charter policy, in last week's issue. He writes: "Mr. Topley has called my attention to the fact that I have used the expression 'Council' instead of 'Advisory Committee' in referring to his proposals regarding proportionate representation. [June 24, p. 447.] This is an obvious slip, and I shall be glad if you will kindly note this correction in your next issue."

The Conference on Town Planning, which was included in the programme of the forty-first annual general meeting of the Institution of Municipal and County Engineers, held at Cheltenham last week, under the chairmanship of Mr. J. S. Pickering, produced some useful papers from the surveyors' and engineers' standpoint, and some plain speaking from Professor S. D. Adshead on behalf of the architects. Professor Adshead urged that the true end of town-planning was to provide schemes that would ensure the building of towns in a way that would inspire the citizen, elevate his imagination, refine him, and encourage him to live nobly. He added a warning to the municipal engineers not to undertake too much. When they attempted architecture, there was always a terrible collapse.

The architects, however, did not escape criticism in their capacity as town-planners. He characterised them as perhaps the worst of all sinners in the matter of town character study. That is rather severe; but Town-planning is, after all, still in its infancy—or perhaps one should say, in the infancy of its Renaissance. Outside the Liverpool group and one or two isolated architects who have specialised in the subject, there are few who have given more than a passing thought to the countless subtle problems involved in it.

Professor Adshead's sound advice to engineers to keep to their province comes at an opportune moment. So far, town-planning schemes have been almost entirely in their hands, and a tendency to try to collar them altogether has recently made itself felt. That the engineer is indispensable, no one doubts; but so is the architect, if the full purpose of town-planning is to be realised. The reason for his comparative exclusion so far is two-fold; in part he has his own apathy to blame, and in part the unimaginative conservatism of local bodies has prevented them from inviting his assistance. They regard him as a luxury.

Some hoardings that had been erected on the banks of the Regent's Canal were removed by order of the St. Pancras Borough Council, as a result of strong protests from Regent's Park residents. It seems, however, that the borough engineer could only take action because his licence for the hoardings had not been

obtained, and apparently he has not the power to withhold the licence if it is sought with due formality, and therefore the hoardings may go up again, rendering hideous the grassy and wooded banks. The protest of the residents is doubly welcome as a symptom of increasing sensitiveness to amenity, and hence perhaps as a harbinger of legislative action.

One good effect of the "elimination-of-the-contractor" discussion has been the enlightenment of the public as to the heaviness of the burden of responsibility which the contractor bears. And while the contractor seems to be responsible to everybody for everything, the workman is responsible to nobody, and for nothing. This point is stated very tersely by Mr. Howard Ince in a letter to the "New Age," which had been advocating the Guild as against the capitalist builder. "As a matter of fact," writes Mr. Ince, "the building contractor, however much his 'eyes may be glued upon profits,' accepts responsibility not only for his own work, but for that of all the artisans whom he employs; though the latter take none, should they scamp their work or cause injury by 'carelessness.' Another instance of the workman's love of immunity is noticed in Mr. William Woodward's communication to us on p. 14. Profit-sharing, he says in effect, might be a good thing if the workman could be persuaded that its counterpart is loss-sharing.

The Cardiff Corporation has a housing scheme in view, and recently appointed a committee to deal with it. In their zeal to justify their existence, the latter issued, more or less promptly, an advertisement stating that Cardiff architects might send in plans of houses at their own expense for consideration. Not unnaturally, this invitation brought a letter from the South Wales Institute of Architects, inquiring who was the assessor. Of course, there was no such person. It had not occurred to the committee that their advertisement suggested a competition. They did not think it did.

However, the advertisement had either to be explained—or repudiated. The Council decided to adopt the latter method, and a councillor rose to move that the offer to consider plans by outside architects be withdrawn, and that in substitution thereof a sub-committee be appointed to act with the city engineer in preparing a housing scheme for consideration. He felt strongly, said he, that they would be slighting their own architectural and engineering department if they engaged an outside architect. This was rather a nasty hit at the authors of the advertisement, who, in inviting outside assistance, had apparently forgotten all about the feelings of the Council's architectural and engineering department. But that could not be helped.

A contemporary, in the course of a short article relating to the planning of the new town, Edinburgh, in the eighteenth century, gives some interesting statistics as to the relative areas occupied by the buildings, roads, and open spaces. Thus, 40 per cent. of the area is occupied by buildings, 40 per cent. is represented by public parks and open spaces, and the remaining 20 per cent. by roads. The density in the building area is only 10.5 houses per acre. The latter fact is one on which, from the hygienic standpoint, the northern capital may plume itself. The average density in our most up-to-date spacious garden suburbs, with no industrial conditions to provide for, is about eight houses to the acre—which, all things considered, is a comparatively poor achievement, and, what is more, less satisfying aesthetically.

Had other civic bodies followed the example of Edinburgh, concludes this apologia for the new town,



what labour and expense would have been spared the people of to-day! This grave reflection on more southern towns, such as London, becomes the graver when one reflects that their shortcomings were not for want of expert schemes given them for town-planning on a grand and simple scale. Wren, for example, had quite a nice little plan for the architectural regeneration of London. Nash, though he accomplished much, was foiled in his attempt to carry through a general scheme of main thoroughfares which the metropolitan town-planners of to-day, confined as they are to sections, can only regard with mingled admiration and envy. Edinburgh new town had a fair start, and succeeding generations of town-planners have not failed to maintain her advantage. London can hardly be said to have started yet on anything like systematic lines; the chaotic building expansion of 1860 and after rendered the effort hopeless until some definite civic consciousness should arise in the public mind to give power to the elbow of town-planning promoters. Happily this desired new force is not as far distant as it was.

### HERE AND THERE.

FIFTY years ago, I believe, architects thought they knew a great deal about mouldings, and were prepared to discuss enthusiastically the differences between French and English types, and to go into the niceties of mouldings of the twelfth, thirteenth, and fourteenth centuries. Architects no longer delight in these Gothic things, and their knowledge of them is probably rather hazy; but they continue to be very lavish with their classical mouldings, both inside and outside, and the custom often gives rise to some misgivings on the need for such profusion. The indiscriminate use of mouldings is well indicated by Mr. Aymar Embury, who says: "I believe that most draughtsmen, and a good many architects, including myself, do not go about the study of mouldings in the correct manner; we have formed the habit of studying them in a certain way, and we keep on in spite of a moral conviction that it is not the right way. We study them in section with the chief end of getting an agreeable succession of curves and plain surfaces, and with special tenderness for making the curves themselves beautiful. Now this method may apply very well to the design of Art Nouveau surface treatment, but it is certainly not the correct way in which to study a cornice, and if we do get good cornices it is only because either we or those from whom we copy have by experiment found that a certain projection and scale of detail will arrive at somewhere near the right result—but only somewhere near."

"Mouldings are seen in only two ways: one in which it is not the profile that counts, but the shadows of the surfaces and the shades caused by their arrises; the other where they turn a corner and we see them in profile. This profile is *not* the profile we have studied with so much care, but is a diagonal of that profile and presents a very different succession of curves; and neither of these two ways of seeing a series of mouldings or a cornice is as a rule correctly considered. . . . In designing window and door architraves the same methods are usually applied for both interior and exterior work, whereas the conditions of use are markedly different. I have often seen a draughtsman throw his section into isometric projection, black on his shadows, and assume that the result gives him something like a fair idea of the way the architraves would appear. As a matter of fact, on interior architraves in daylight the shadows are thrown exactly in the opposite direction from the one usually assumed,

and he has high lights where he has placed shadows, and no shadows at all—only shades."

These are points which architects would do well to bear in mind. Undoubtedly a moulding needs to be designed from the point of view of its effect *in situ*, under individual conditions of lighting, and not as though the wall surface were set up like a target with the light streaming down on it from one arbitrarily determined position. But the point in connection with mouldings on modern buildings which always strikes me most forcibly is the general coarseness and redundancy of the members. Houses of a hundred years ago offer a striking contrast in this particular. There are reeded mouldings around the door panels and on the jambs of the mantelpieces; the cornices are simple and sweet in outline; and there is throughout a general delicacy in treatment that is far more pleasing than the common manner of fashioning mouldings to-day. Modern woodwork is much too heavy in character. Door panels would look better if they were not sunk so deeply, skirtings might be half their usual thickness, glazed partitions would be infinitely more pleasing with thinner bars, porches could dispense with the timbers of elephantine proportions which every builder is ready to produce; and half the members of mouldings could be eliminated with advantage. In an age when the dire evil that lurks in dust is a topic at every sanitary and medical congress, it seems almost a crime to provide such abundant facilities for the residence of microbes. Perhaps the time is far distant when we shall live in painfully hygienic rooms with flush hospital doors, but the prolific sprinkling of clumsy mouldings over wood and stone bears its own condemnation as an offence to the eye, apart from its faults from the hygienic standpoint.

On the strength of a new official guide that was put into my hands, I summoned up courage last week and went into the Museum of Practical Geology in Jermyn Street, though I must confess that I soon fled before such a formidable array of things created at periods when Man was not, and the ichtheosaurus and other monsters roved the land and swam the waters. You have to be a very earnest person to pore over cases of fluor-spar and palæozoic fossils and quartz. There is nothing whimsical about the post-Tertiary gravels, the igneous rocks, or the chalk and claybeds of the Thames Valley system. Still, the Compleat Architect is supposed to know something of these matters, and the magnificent collection in Jermyn Street is always ready for his inspection. He should go, however, when a thoroughly proper mood takes possession of him. On Shakespeare's authority, there be sermons in stones. The reader should test the maxim at the Museum of Practical Geology. And should he not find the exhibits supremely exhilarating he will at least be able to study the quite admirable design—the façade more particularly—by Sir James Pennethorne.

I came across a phrase the other day which might be used as a very fitting epitaph for the tombstones of some architects. This phrase, indeed, had particular reference to a member of the profession, of whom it was said that he gained a respectable practice, and his works did not live after him! There is blessing thus in extinction, and if only the too, too solid fabrics could be melted away like the spirit that brought them into being, we should all be the happier. One might even commend the furies for their attention to some buildings, if they would but leave the old churches alone, and keep their mad energy away from precious things that have been handed down to us from past ages.

UBIQUE.



## SOME LEGAL ASPECTS OF LABOUR DISPUTES.

SPECIALLY CONTRIBUTED BY W. VALENTINE BALL, M.A.,  
BARRISTER-AT-LAW.

THE great labour dispute which at present engages the earnest attention of all those interested in the building trade suggests the consideration of a few legal points of considerable importance.

The main question is, who bears the loss that a dispute entails? It is obvious that considerable immediate loss falls upon the builder; and it has been suggested in some quarters that, assuming it were possible to dispense with the middleman, the elimination of the builder or contractor altogether might place the whole loss upon the shoulders of the building owner.

It is proposed to inquire whether, given the subsistence of a contract drawn in accordance with the R.I.B.A. form, the loss consequent upon a labour dispute falls eventually upon the builder or contractor.

In the first place, owing to the strike clause which the prudent builder has inserted in the document which he signs, penalties are not payable for delay caused by labour disputes. A great part of the actual loss occasioned by delay falls upon the employer, if the contract has been drawn according to the form above-mentioned. Thus, if a man has employed a contractor to build houses which are to be let on lease, the incidence of a labour dispute necessarily postpones the day when those houses can be let. The entire loss which results from valuable leasehold property being thus kept idle falls upon the building owner. But there are a great many losses which fall, at any rate in the first place, upon the builder. Let us glance at some of them.

The question whether the builder can make a claim against the employer in respect of such items is not an easy one to answer. If the architect has made an "extension of time for completion" pursuant to Cl. 25 of the Form, it has been argued that the extension of time ought to be sufficient for the builder; but there is authority for the proposition that where there has been an authorised extension of time owing to delay by the employer in giving possession of the site, the builder is entitled to damages. The case of *Bush v. Trustees of Whitehaven*, 52 J. P. 392—the reasoning in which was followed and adopted last year in an unreported case decided by Mr. Justice Channell—appears to establish the principle that the builder is entitled to be recompensed for delay for which the employer is responsible. The inclusion of the strike and the lock-out among the causes of delay for which the builder is to be excused seems to make it plain that he can recover damages for any loss which he may have sustained in consequence of the suspension of work.

The question is—Can we argue from this that the builder is entitled to put upon the employer any expense which he has to bear from causes for which neither he nor the employer is responsible? The opinion is expressed, tentatively and in the absence of direct authority, that damages caused by a labour dispute which has been recognised by the architect in accordance with the terms of the contract may be recovered from the employer.

It may be added that the case of *Drew-Bear and Others v. St. Pancras Guardians* (reported in Emden's Building Contracts, 4th edn., p. 681) throws some useful light upon the measure of damages in such cases. The damages there awarded included: (a) The increased cost of labour; (b) increased price of

material; (c) establishment charges; and (d) loss occasioned by the tying up of capital.

[Mr. Valentine Ball's opinion on the legal aspects of the direct employment of labour was given on p. 418 of our issue for June 10, following immediately upon the announcement of the Theosophical Society's decision to dispense with the services of a contractor for the completion of their building in Tavistock Square. Legal opinion upon that subject coincides in the main with the professional views expressed on p. 14 of the present issue and in the two preceding numbers.]

## THE PLATES.

OWING to the pressure on our space this week, we are obliged to hold over the concluding part of Mr. Edwards's critical article on Von Klenze. We give, however, as the first of our plates, the interior of a remarkable building by that architect. The remaining plates all represent series which have established themselves in the Journal, the interest being fairly well distributed between complete buildings and details.

*Monumental Architecture. XXIV.—The Valhalla, Regensburg, Bavaria. Von Klenze, Architect.* The Valhalla was built for King Ludwig, for the accommodation of busts of eminent Germans of all ages and classes. Architecturally, it is a modern Doric temple, a copy of the "Parthenon," the two buildings having the same proportions; and the interior, which we illustrate, is enriched with fine bas-reliefs and statuary, while the walls and roof are singularly gracious in design. The Valhalla is situated about six miles from Regensburg, near Donaustauf.

*Vases. V.—Louis XVI. Vase in the Grand Trianon, Versailles.* French Classicism reached its ultimate point of suavity in the reign of Louis Seize, and this vase reflects the artistic tendency of the day. The enrichment between the stem and the figures in relief, and that around the brim, does not disturb the main lines of the design, but it does little to emphasize them. The workmanship, however, is in itself excellent.

*Modern Domestic Architecture. XXVII.—"Barcaple," Patterton, Newton Mearns, Glasgow. Watson and Salmond, F.F.R.I.B.A., Architects.* The district of Whitecraigs and Patterton, one of the latest of Glasgow's suburbs to be opened up, is situated to the south of the city, and commands an extensive view of the Valley of the Clyde and the mountains to the north, as well as the country to the south. The house we illustrate is the property of Mr. Thomas Clement. It is built of brick and rough-cast, with stone dressings, the stone being from Black Pasture Quarry. The roofs are tiled. Messrs. Boyd and Forrest were the contractors for the mason and joiner works. The total cost was £10,000.

*Small Houses of the Late Georgian Period. XV.—House on the Hagley Road, Birmingham.* A symmetrical-fronted stucco house, built in the early years of the nineteenth century. It is interesting to note how the Adam tradition has been carried on, as seen in the details of the three-light windows and the entrance door.

*The Palais de Justice, Brussels. V.—Rear Elevation. J. Poelaert, Architect.* Some weeks ago we published, in this series of drawings, the front elevation of Poelaert's building. In the freshness of its proportions and the fineness of its detail this drawing of the rear elevation is scarcely inferior.

This week also we give No. XVII. of our series of *Cottingham's Designs for Ironwork—Lamp Stands, Candelabra, etc.*; and Stage 4 of our *Chart of Town Planning Procedure for Owners' Schemes, to be Adopted by Local Authorities.*



## THE NEW SCHOOL OF ARCHITECTURE, UNIVERSITY COLLEGE.

[Specially Contributed.]

THE new building in Gower Street has just been completed, the occasion being celebrated last week by a *conversazione*, which was attended by Prince Arthur of Connaught. Situated at the angle of Gower Street and Gower Place, the new building forms a unit of the scheme for extension of the University College buildings of which Professor F. M. Simpson is the architect; its position can be seen at a glance in the block plan, which we reproduce. Next to it stands the School of Eugenics, as yet not quite completed, and on the far side of the entrance opening is the Engineering School, which for the greater part of its length is now only one storey in height. In Professor Simpson's design, the latter is raised to the level of the existing buildings. Dealing with the School of Architecture itself, it will be noticed that the windows of the uppermost storey of the façade are practically square, and have a somewhat squat appearance, which is emphasised by the long

windows with heavy pediments of the storey below. Here the architect was handicapped by the arrangement of the roofs of the existing buildings, which in the interests of uniformity he was obliged to follow; and these roofs again were the result of the necessity for increasing the accommodation on the top storey by the creation of upper top-lighted studios at the rear of the building, involving the raising of the roof over this portion. Thus, the roofs throughout are in two tiers, the upper one at the rear, and the lower in front—as one can see from the quadrangle. Connected with this was another problem. The north wing of the quadrangle joins the back of the new School of Architecture, and its raised roof obviously needed something in the way of a buttress at its extremity, where it meets the new structure. To meet this need, Professor Simpson has introduced the substantial pavilion which is so noticeable a feature of the building; and when he comes to deal with the Engineering School at the other



THE NEW SCHOOL OF ARCHITECTURE, UNIVERSITY COLLEGE: WEST FRONT.  
PROFESSOR F. M. SIMPSON, F.R.I.B.A., ARCHITECT.



end of the Gower Street front, a corresponding pavilion will take up the line of roof of the south wing. On either side of the entrance is a similar pavilion, terminating the line of buildings attached to it, and these two will be connected by a corridor borne upon a screen of columns, through which the fine portico and dome of Wilkins's original main Arts block will be plainly and impressively visible. The two outside pavilions, in effect, answer two purposes. They are indispensable to the lines of roof of the quadrangle wings; at the same time, disposed as they are in regard to the Gower Street front, they form with the two centre ones a feature that serves to unify the entire front, and imparts an added interest—perhaps a touch of the monumental—to a façade which, from its very length, might otherwise suffer from monotony.

The growth of the University College buildings is a study in itself. The main block, with the portico and dome, was built by William Wilkins in 1827, following the foundation of University College in the previous year. Wilkins's design made no provision for a quadrangle; but he erected at the extremities of, and some little distance from, his main building two circular temples, which have since been incorporated with the north and south wings. The School of Anatomy and the Library were added in 1849, Thomas L. Donaldson, the first Professor of Architecture (1841-1865) at the College, being responsible for these. It was Donaldson who began the preparation and collection of the series of diagrams which now form part of the equipment of the school. His successor was T.

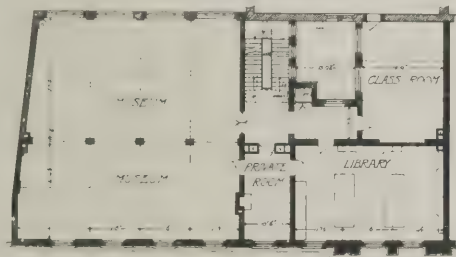


Lecture Theatre.

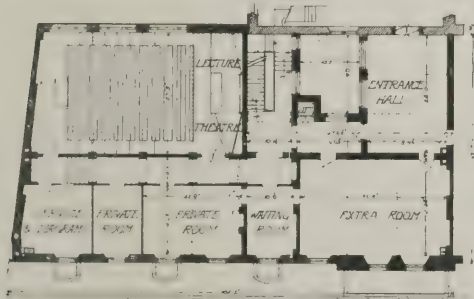
Hayter Lewis, who held the Chair from 1865 to 1881, and who was largely instrumental in establishing and organising the R.I.B.A. Examinations in Architecture. Hayter Lewis is generally credited with the north and south wings, the former of which includes the Slade School and the School of Botany: these were, at any rate, erected during his professorship. He was succeeded by Professor T. Roger Smith, who held the chair till 1903. The only addition during his tenure was the School of Engineering.

Professor Simpson's career is dealt with below. The most important thing that has happened during his term of office—the event that led directly to the

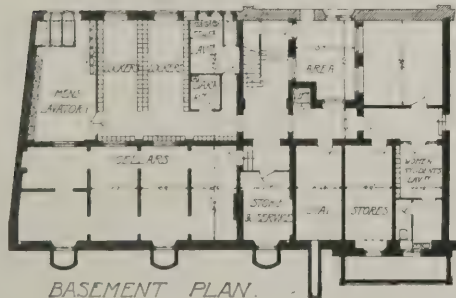
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UNIVERSITY COLLEGE.



FIRST FLOOR PLAN

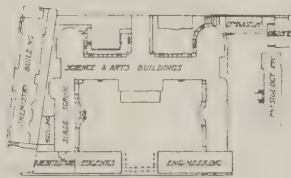


GROUND FLOOR PLAN

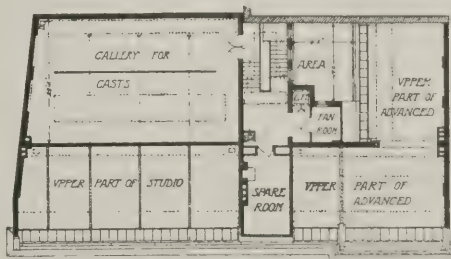


BASEMENT PLAN.

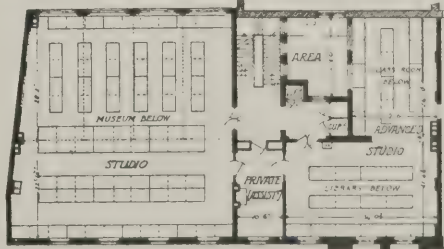
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BLOCK PLAN



THIRD FLOOR PLAN



SECOND FLOOR PLAN.

THE NEW SCHOOL OF ARCHITECTURE, UNIVERSITY COLLEGE: PLANS.

PROFESSOR F. M. SIMPSON, F.R.I.B.A., ARCHITECT.



building of the new School of Architecture—was the incorporation of University and King's Colleges in the University of London. As soon as this was accomplished the Senate decided that when a convenient opportunity arose, it would be expedient to combine the two Schools of Architecture in a single building, for which a suitable site was available on the north-west front of University College. On November 30, 1911, a benefactor, who desires to remain

anonymous, offered to erect buildings for the combined schools, as well as for other purposes, and this offer was accepted by the Senate. The amalgamation of the two schools took effect as from September 1, 1913, and the new building was begun on December 1, 1913.

The building provides accommodation for over one hundred students, and includes three large Studios, for both ordinary and advanced students, a Museum, a Cast Gallery, a Library, a Lecture Theatre, a Class



Studio.



Cast Gallery.



Room, an Entrance Hall, Private Rooms for Professors and Lecturers, a Diagram Room, Dark Room, Cloak Rooms, Lavatories, and additional rooms for new developments, as required. The accompanying photographs and plans illustrate the equipment of the principal rooms. The Cast Gallery and Studios are very perfectly lighted, the latter being fitted with specially designed working benches, and the former with two screens for double lanterns—a contrivance that enables the plans of a building to be illustrated side by side with its elevation, etc. A useful feature of the equipment is Tonks's Patent, which enables large or small diagrams to be shifted from one position to another on the walls, avoiding the necessity of their being taken down and re-hung. Altogether the fittings are up to date in every particular.

The University College School of Architecture offers certain obvious advantages to its students. They are brought into touch with students engaged in other, but to some extent kindred, pursuits—engineers, sculptors, painters, doctors, and so forth. With some of these they often work side by side; in the lectures on general subjects and in the life of the college they meet students intending to follow other callings. This intercourse is excellent for architectural students during their studentship, giving, as it does, to the course a comprehensiveness that may prove of lasting value to them in their after-careers.

At present, pending the appointment of a professor for town-planning, the arrangements for the course in this subject are in abeyance, but the nomination is expected to be made this week, and ratification by the Senate will doubtless follow within a measurable period. Meantime, of course, town-planning from the engineering aspect is fully covered in the curriculum.

It is here, in particular, that the new School of

Architecture may, like certain other schools that are somewhat similarly constituted, render an important service to town-planning by bringing architecture and engineering into early association. In this way there may gradually be brought about between the two professions a more cordial relationship that will be good for both.

*Professor F. M. Simpson, F.R.I.B.A.*

Professor F. M. Simpson, the architect of the new School of Architecture, University College, and known to-day as a vigorous exponent of the Classic Style, began his architectural career in a very different atmosphere. In 1876 he was articled to G. F. Bodley, R.A. Four years later he was admitted a student of the Royal Academy Schools, and in 1884 gained the R.A. English Travelling Studentship.

In 1887 he was elected a member of the Architects' Guild, and seven years afterwards accepted his first important appointment. This was the Roscoe Professorship of Art at University College, Liverpool, then a college of the Victoria University. Prior to this appointment, the occupants of the Chair had been Sir Martin Conway and the late R. A. M. Stevenson, both of whom had recommended that the Chair should be devoted to architecture alone; and Professor Simpson was the first occupant under the new conditions. Day courses for architectural students were started at once, and it is worth recalling that these were the first of their kind in England. Professor Simpson began with half a dozen students. Before he left, he had the satisfaction of seeing the number raised to fifty, half being day students and half evening students.

Professor Simpson was appointed Professor of Architecture at University College, London, in 1903, and on the incorporation of that college in the University of London, received the title of Professor of Architecture at the University. The architectural courses at the University were entirely remodelled under his direction.

He started practice as an architect in 1883. Prior to his appointment to the Liverpool Chair, his work was mainly concerned with private houses. Later he designed Halls of Residence at Liverpool, Laboratories for the Liverpool University, and, in conjunction with Messrs. Willinck and Thicknesse, the Queen Victoria Memorial in the same city. But his most important architectural work has been the additions to University College. These include, in addition to the School of Architecture, the new Chemistry building on the north side, the Institutes of Physiology and Pharmacology on the south side, and the Eugenics building (not yet completed) in Gower Street. He has also been engaged on extensive remodelling of the older buildings. The remodelling of and additions to the London Institution in Finsbury Circus, to adapt it for the School of Oriental Studies, will shortly be commenced from his designs.

Professor Simpson is the author of "A History of Architectural Development," in three volumes, the first volume of which was published in 1905, and the third in 1911, by Messrs. Longmans, Green, and Co., as part of the "Architects' Library," which he edited. He has also contributed many reviews and articles to the professional and lay Press. In his travels he has explored a good part of Europe, especially France and Italy; there are few buildings of importance in England and France he has not visited. Half a dozen or more of his tours abroad were undertaken expressly to collect material for "A History of Architectural Development."

He became a F.R.I.B.A. in 1901, was President of the Liverpool Architectural Society, Sessions 1900-1 and 1901-2. At the R.I.B.A. he was an original member of the Board of Architectural Education, and has for many years served on the Literature Committee.



PROFESSOR F. M. SIMPSON, F.R.I.B.A



## ST. PAUL'S BRIDGE COMPETITION.

THIS remarkably interesting competition—for the “architectural treatment” of the proposed new St. Paul's Bridge over the Thames—has called forth very inadequate response from the profession. The unique character of the problem, and the romantic possibilities attaching to any scheme for a bridge, should have produced a far greater number of competitors.

It may be that the limitations imposed by the conditions on the all-important matters of structure, span, and abutment, which were fixed by the engineers beforehand, are really responsible for the abstention of many well-known men. The architects were asked to give expression to a problem in which they had had no part, and to which their contribution was largely superfluous. Consequently the drawings show many attempts at motives in design which do not arise from the problem set, with the resulting failure that so certainly attends any architectural treatment that does not confine itself to structural emphasis.

Sir William Emerson, Past-President R.I.B.A., the assessor, made the following awards: 1st premium, of £300, Mr. G. Washington Browne, R.S.A., Edinburgh; 2nd, £200, Mr. Charles E. Barry, Victoria Street, Westminster; 3rd, £100, Mr. E. R. Douglas Selway, A.R.I.B.A., Bedford Hill, London.

*The Selected Design.*

In the selected design Mr. Washington Browne has grasped the scale of treatment demanded by a work of this magnitude. He has adopted an exceedingly

simple and strong treatment for the arches and piers; the voussoirs of the arches are all finished to a line at the back, giving a restful effect which is further enhanced by stopping the main cornice against the piers instead of running it round them. The weakness of untied angles in the cornice is avoided, and the pier looks what it really is. The absence of an order attaching to the face of the piers is satisfactory, and the whole conception may be said to be free from unnecessary features and from eccentricity.

The strong point of the design is undoubtedly the treatment of the pylons and staircases on the South side of the river. The planning of these features is in admirable relation to the bridge, and the placing of great groups of statuary in the centre of the staircase, with the pylon mass for background, has a sculptural quality of great merit. Perhaps the composition is slightly marred by the obelisks, which are the least satisfactory elements in the idea. The fine open staircases themselves form the setting to the sculpture, and to this complete self-expression of essential parts the winner no doubt owes his success. The covered-in staircases in other designs are not to be compared with the winning one in this respect. It is a little disappointing to find that these features are only on the South side of the river instead of at the four corners of the bridge, but all this is due to the proposed embankment on the South side only, to which the staircase will give access.

The scheme is distinguished by imagination combined with a common-sense knowledge of the



ST. PAUL'S BRIDGE COMPETITION: FIRST-PREMIATED DESIGN: STAIRCASE AND PYLONS, BANKSIDE.

GEORGE WASHINGTON BROWNE, P.S.A., ARCHITECT.



requirements and their best structural expression, and is illustrated by singularly charming perspective drawings.

#### *The Second-Premiated Design.*

The design of Mr. Charles E. Barry, placed second, is probably premiated on account of his covered ways over the pavements. They are most desirable features in a bridge, and many will regret their absence from the selected design, both for the convenience of pedestrians and for the æsthetic value of the greater depth at the crown of the arches. Unfortunately the treatment otherwise compares unfavourably with the first and third designs, and indeed with many others in the room.

#### *Third-Premiated Design.*

The third premium is awarded to a clever set of drawings by Mr. E. R. Douglas Selway, who has produced a very graceful and attractive design. Its distinguishing features are pylons of great height, and a somewhat extensive use of sculpture. The richness of the treatment would scarcely be so effective in execution as it is on the drawings, and the covered stairs are objectionable. Too many already exist in the approaches to our bridges.

No. 19 is perhaps the most ambitious and in some ways the finest design submitted. The plain treatment of the piers and arches is most satisfactory, and the approaches at both ends are marked by magnificent staircases from the water's edge, leading up to a monumental pylon placed centrally with the staircase and detached from the parapet of the bridge. The perspective drawings make the most of this arrangement, and the advantages are great space and fine architectural arrangement. The weakness lies in the fact that the pylons are quite isolated from the bridge, and instead of consolidating the abutments are merely independent monuments at the head of the staircase, and give no structural expression.

The perspective view showing the relation of the

bridge to the Cathedral is most enthralling, but the study for the Queen Victoria Street staircases is commonplace.

#### *Unplaced Designs.*

No. 6 is a very strong scheme, with quite the best perspective drawings in the room. The planning of the staircases and pylons is admirable, particularly those to the Queen Victoria Street Bridge.

It is perhaps a better treatment to carry up the piers between the main arches, but, with the exception of this criticism, there can be nothing but praise for this design, and one may wonder why it was not among those premiated.

No. 7 is evidently by a master hand, for it combines great originality with knowledge of no ordinary degree.

The piers are carried up to the same height as the pylons at the end, which is an interesting and unusual feature. The staircases are open, but are so screened by the pylons that they cannot express themselves, and seem to be purposely hidden away.

The sketches of the masonry are most attractive, and in the highest degree architectural in conception.

No. 28 is a clever design, showing very clearly the relation of the bridge to St. Paul's. The drawings are very finely executed in a French manner, and show much originality and a keen sense of the possibilities of the problem. The staircases are a weak point, being cramped and mean, although worked out ingeniously in the detail.

Pylons are omitted, and in this case buildings are planned to give weight and prominence to the approaches—it cannot be said successfully.

No. 0 has an original idea for covered ways, over which outside pavements are provided, reached by steps at each end. The lower walk is lighted by small windows in the main cornice. The author has a perfectly straight line for his parapet, completely masking the natural curve of the bridge. This very long, straight line is not pleasing, and is a practical disadvantage in the arrangement is the impossibility of crossing the road anywhere in its length, or of getting upon a passing vehicle.

No. 23 is a design of considerable ability, but somewhat overpowered by the very large pylons containing staircases completely covered and enclosed. The architectural possibilities of external staircases are thus lost, and the super-incumbent pylon becomes oppressively big, although there is really nothing inside it.

The windows gave an indication of this but also make the weakness at once apparent. The pencil sketches in perspective are brilliantly drawn, but the scheme bears signs of haste.

No. 8 has great simplicity, but the rugged nature of the stonework is not suitable to the heart of a city. This roughness is accentuated by the drawings, which make the bridge look somewhat ruinous and as if inspired by Piranesi. The relation of the staircase and pylon is good, and there is much originality in the whole treatment.

No. 26 is marked by unnecessary economy, but is quite good and sound in all its details.

The whole exhibition reaches a high standard, and includes many extremely able designs and some really wonderful draughtsmanship.

H. AUSTEN HALL.

#### *The Winners of the Premiums.*

Mr. George Washington Browne, R.S.A., will be remembered as the author of the monumental King Edward VII. Memorial for Holyrood.

Mr. Charles Edward Barry, A.R.I.B.A., A.S.I., of Parliament Mansions, Victoria Street, Westminster, the winner of the second premium (£200), was born in 1855, and is the eldest son of the late Charles Barry, President of the R.I.B.A. in 1876-9, and grandson of



ST. PAUL'S BRIDGE COMPETITION: FIRST-PREMIATED  
DESIGN: VIEW OF PIER.

G. WASHINGTON BROWNE, R.S.A.





Queen Victoria Street Viaduct.



St. Paul's Bridge.

SECOND-PREMIATED DESIGN. C. E. BARRY, A.R.I.B.A., ARCHITECT.

the late Sir Charles Barry, architect of the Houses of Parliament. Educated at Uppingham, Mr. Barry received his architectural training in his father's office, and from 1876 to 1878 was engaged by the Great Eastern Railway Company for the design and erection of the block of buildings fronting Liverpool Street, and containing the Great Eastern Hotel and Restaurant, shops, offices, etc.

In 1888 he went to Washington, D.C., U.S.A., and was appointed architect to the British Embassy. While in the United States he designed and executed several important works, public and private. Returning to England in 1895, he joined his father in partnership, and, on the death of his father in 1900, he was appointed architect and surveyor to the Governors of Dulwich College, and is still surveyor-in-charge of the Dulwich Estates. He is also architect to the Hospital for Sick Children, Great Ormond Street, and holds other similar appointments. Among his principal works are: Additions to the S.E.R. General Offices; block of buildings in Tooley Street, containing the

Audit Office and other general offices for the S.E.R.; several railway stations (including the terminal station and general offices at Shanghai, for the Shanghai-Nanking Railway); several buildings for the Hospital for Sick Children; chemical and physics schools and laboratories for Dulwich College; blocks of working-class dwellings for the Dulwich Estates Governors; Passmore Edwards Free Library and Christchurch Hall, Dulwich; several buildings for Epsom College; offices of the Rock Assurance Company, Blackfriars; church at Tadworth, Surrey; large country houses at Witley, Ashdown Forest, Highdown Heath, Tadworth, etc., etc.

Mr. E. R. Douglas Selway, A.R.I.B.A., winner of the third premium (£100), was born in 1887 at Dursley, Gloucestershire. Educated at King Edward VI's School, Stourbridge, he served articles to an architect of the same town, but has been professionally engaged in London since 1907. As R.I.B.A. student he took third place in 1909, and gained his Associateship in 1912.



THIRD-PREMIATED DESIGN. E. R. DOUGLAS SELWAY, A.R.I.B.A., ARCHITECT.



## CORRESPONDENCE.

*The Editors disclaim all responsibility for the statements made or opinions expressed by correspondents, who are asked to be brief, and to write on one side only of the paper.*

*Compressive Strength of Concrete.*

To the Editors of THE ARCHITECTS' AND BUILDERS' JOURNAL.

SIRS,—A statement in the article in your issue of June 17 on the basic principles of concrete raises a point which is not without importance in design.

It is to the effect that the compressive strength of a block composed of small accurately faced cubes is the same as that of a similar block composed of the same cubes cemented together. It would be interesting to know whether this view is supported by the results of tests.

The logical conclusion from it would be that the ultimate compressive stress per square inch which would destroy, say, a 12-in. cube would be equally destructive when applied to an area of, say, 3 in. by 3 in. in the centre of one face. Experimental tests on concrete blocks of various ages support the common-sense expectation that such would not be the case. The ring of material round the smaller stressed area tends to prevent that bursting outwards which is the characteristic feature of failure by compression, and raises the ultimate stress very materially.

A simple but instructive example of the value of hooping material is to enclose some fine dry running sand in a cylinder of thin cardboard or paper, say, 1 in. in diameter and 6 in. high. Such a sand column, although only hooped to a degree which seems quite negligible, will sustain most surprising weights.

The matter is not of mere theoretical interest. In the design of grillage foundations it is often a point of considerable importance whether the bottom tier should or should not be designed to limit the stress which it delivers to the concrete beneath it to the safe stress which one would place all over an entire block. In the design of reinforced concrete beams, also, the degree of hooping afforded by the type of shear stirrups is by no means negligible. Also the anomalous method of deducting from ultimate stresses which cause destruction when applied equally all over a block the extreme skin stress which determines the design of such beams, may possibly cause a large margin of real strength to exist undetected.

In spite of all its advantages, reinforced concrete cannot afford to neglect any element of strength, especially if the proposed L.C.C. Regulations are as imminent as the author of the article believes to be the case.

PERCY J. WALDRAM.

[I am obliged to you for having let me see Mr. Waldram's letter, and I take this opportunity of briefly replying. The strengths of the blocks considered were assumed to be proportional to the areas and a uniformly distributed strength, in accordance with the usual practice. When accurately faced cubes are used the full area is present without filling, and on that account there is no space for jointing material, and as this cannot be present it consequently cannot increase the strength. Turning now to practical cases: the question whether faced cubes cemented together are stronger than similar cubes uncemented is a matter not yet experimentally settled, so far as I am aware. If two such cubes were tested together it is possible that cracking along planes which are more or less perpendicular to the cement joints would put them both in the same class before the final failure occurred. Then the end effects, due to the surfaces which were in contact with the top and bottom faces of the cube, would probably amount to more than the effect of the cement joints. Mr. Waldram's suggested experiment to show the effect of hooping is very simple and effective, and is the cheapest and easiest way of

applying the casing mentioned in the article.—JOHN A. DAVENPORT.]

*Academy Architecture.*

To the Editors of THE ARCHITECTS' AND BUILDERS' JOURNAL.

SIRS,—I am obliged to your publication of my letter. I must confess to finding some little difficulty, however, in following Professor Reilly's remarks in the footnote appended.

The examples of prettiness and laborious formalism which the Academy exhibits and in some part also produces, are surely all according to convention and rule, which, I believe, is the generally accepted meaning of the word "academic."

Professor Reilly evidently claims it in painting for the great masters, who have repeatedly thrown over rule and tradition and have asserted their own individuality. But the supporters of tradition are surely not those who defy and disregard it.

But even if that be true in painting, then it is equally true in architecture, and its masters are also those who are not bound by precedent and tradition, but who freely use the forms and styles of the past for their purpose, or disregard them, and they are justified if in so doing they arrive at a satisfactory result. But the academic method is undoubtedly best for those who are incapable of such an achievement.

It has always been the individualists of the past who have kept art alive and have prevented the "academic manner" from becoming an absolutely pernicious thing.

I have not seen the R.A. as yet this year, and it is to be hoped that the "pretty-picture" type is not so prevalent as Professor Reilly suggests. The Academy's weakness has, I believe, been generally recognised as being more in the direction of studied formality and lack of virility, and perhaps also in the crowded and unsympathetic hanging, which, it is gratifying to find, an attempt has now been made to remedy, in at least one of the galleries.

By its recruits in recent years the R.A. has shown itself far more ready to recognise "painters who are artists," and most of them cannot, I think, be justly accused of "painting down to the general level of prettiness."

ALWYN H. HOLLAND.

*Contractors' Tenders.*

To the Editors of THE ARCHITECTS' AND BUILDERS' JOURNAL.

SIRS,—It seems to be the practice nowadays, and one which is gaining much favour among architects and certain public bodies, to abstain from providing contractors who have tendered for certain works with the list of tenders. I consider such practice as mean and despicable, for the very least that an architect might do is to provide such a list in return for the trouble and expense, oftentimes very considerable, that a contractor is put to when preparing an estimate. It is not very encouraging, after having spent perhaps a week, with the whole staff employed, getting quotations, pricing, running out, and checking an estimate, to receive simply a curt note to the effect that your tender has not been accepted. Personally, I find these lists very useful, never failing to scan the estimate again to see which prices may possibly have lost the work. Very often one receives no intimation whatever as to how they have fared. Such conduct cannot fail to give rise to misgivings on the part of the contractor; for surely, if all is above-board, what is the excuse for withholding the list of tenders?

A. C. HUFFELL.

[Surely the insinuation conveyed in our correspondent's last sentence is unintentional.—EDS. A. AND B.J.]



## "ELIMINATING THE CONTRACTOR."

### SOME FURTHER VIEWS OF ARCHITECTS.

In our issue of June 24 we published some observations by Mr. C. H. B. Quennell, F.R.I.B.A., on the relations between architect, building owner, contractor, and artisan, with particular reference to the present labour dispute, and to the direct employment of labour for the completion of the Theosophical Society's building in Tavistock Square. In our issue for June 24 we published the views of Sir Ernest George, Past-President of the R.I.B.A.; Mr. Arthur Blomfield, M.A., Mr. Beresford Pite, Mr. Hastwell Grayson, M.A., and Mr. Edwin Gunn. We now add those of Messrs. Richardson and Gill, Mr. J. A. Gotch, and Mr. William Woodward.

*Messrs. Richardson and Gill:*

"As to the question of 'the elimination of the contractor,' there must be," Messrs. Richardson and Gill pointed out to our representative, "a 'master of the building.' The architect was the master builder. Who was to be the master of the building in the absence of a contractor? Was the average foreman or clerk of the works capable of filling the position? A foreman might carry out a small job, but not a large one which involved much organisation. There had been cases recently in which architects had erected cottages by direct labour, acting themselves as builders, but on a big job it would not do.

"The builder," said Messrs. Richardson and Gill, "is generally a well-educated man, and a man of business. Some people have got it into their heads that building can be done by anybody, but it is a lifelong study. A good many builders are specially trained for building; they have a working knowledge of architecture as well as of the various trades concerned. No sane architect would undertake to carry out a building contract of any size by direct labour. To do so he would have to assume all the responsibilities of the contractor, which would mean that he could only carry out one job at a time.

"To the employment of direct labour the chief objection, from the building owner's point of view, must be the increased cost arising out of lack of organisation. In fact, organisation, or the lack of it, was the position in a nutshell. Building of to-day was a most complex business, and it was the knowledge and skill involved in directing the various trades that made the employment of a master mind necessary.

"No architect would, under existing conditions, advise his client to enter into a contract with an irresponsible body of men. The difficulty of getting the various trades to work together was very great, and the architect would be responsible for the issue of such a vast number of certificates that he would need a separate department to keep his accounts in order.

"They were familiar with the conditions in the North of England and Scotland, where the various trades were employed direct, but even there the largest part of the contract—the brickwork—was sub-let to a builder who supervised the whole work.

"We had something of the kind in the South in the case of the 'brass-plate contractor'—that was to say, the man who had neither yard nor plant, but took the responsibility of a contract and sub-let it to the various trades, employing the archi-

tect himself. In this case the interests of both client and architect were safeguarded by the fact that they could hold the one man, the contractor, responsible."

Finally, Messrs. Richardson and Gill thought the paid agitator had much to do with the cause of labour unrest. They saw no panacea for it any way in the profit-sharing system in vogue among gas workers and others. There was not enough margin in the building trade for profit sharing.

*Mr. J. A. Gotch, F.R.I.B.A., writes:*

"The direct employment of labour would certainly entail an increased burden on the architect, and one which it would be impossible for him to take up as part of his regular work. Yet if the contractor were eliminated, someone would still have to be found to do what he now does, and he would have to be a man with the special training and experience which enable the contractor to do his work successfully.

"Every contractor has a permanent staff of workmen, a considerable plant, and more or less machinery, all of which can be used to advantage owing to the various jobs for which they can be employed. But with the elimination of the contractor, away would go the permanent staff, and every employer of direct labour would have to get what men he could lay hold of at the time. Then where would he get the plant and machinery for his one job? Even if he succeeded he would find the process costly, troublesome, and inefficient.

"The employer of direct labour would find all the risks and responsibilities now borne by the contractor, including insurance and compensation of workmen, thrown upon himself. His chances of getting a job at a reasonable price through competition would disappear.

"Nobody has so far explained exactly how workmen would be engaged after the contractor is eliminated. But the workman's lot would hardly be improved if instead of being permanently employed by one firm he had to depend upon a series of independent engagements which could not possibly succeed each other without intervals.

"These are but a few of the points which arise in considering the question. Indeed, the more one thinks over it the greater do the difficulties and disadvantages appear."

*Mr. William Woodward, F.R.I.B.A.,*

thinks that the custom of employing a contractor works on the whole very satisfactorily, and in his opinion there are no objections to it. Asked whether he thought the "elimination of the contractor" possible, and whether he thought the direct-labour system would be detrimental or advantageous to the architect, the building owner, and the workmen, or either or any of them, Mr. Woodward replies: "Elimination of the contractor is, of course, possible; but the direct-labour system would only be advantageous to the architect by increasing his commission and incidentally increasing the cost of building to the detriment of the building owner. It would give greater opportunities for idleness on the part of the workmen." Asked whether the direct-labour system would not greatly increase the architect's burden and the building owner's risks and responsibilities, he said: "I do not know that the architect's burden would be materially increased; but the building owner's risks and responsibilities would be greatly increased unless some responsible financial head were imported. Expedition would be curtailed, and workmanship would not be improved. In his opinion, the main cause of labour unrest in the building trade

is "the interference of labour leaders." As to whether some system of profit-sharing, co-operation, or labour co-partnership would be advantageous, he remarks dryly: "Profit-sharing would be advantageous, perhaps, if you could make the workmen parties to loss-sharing as well!"

## BOOK NOTICE.

### *Incandescent Electric Lamps.*

At once practical and scientific, as in these days technical manuals must be if they are to possess any real value, Mr. Ogley's little book on "Incandescent Electric Lamps and their Application" is an excellent example of that closer association of principles and practice which electricians have been foremost in ensuring. In a note enclosed by the publishers in our review copy, it is claimed that this book is in effect a "plea for the co-operation of architects and builders in a 'general campaign for better lighting';" but we think that the net impression derived from it by the architect will be that while the book, with its very clear elucidation of principles, certainly gives him a more intelligent interest in the subject, and a much firmer grip of it, yet it reveals still more clearly the need for specialisation in a matter that becomes continuously more complex. Perhaps that is the effect intended—the architect is expected to co-operate with the specialist. The eleven chapters comprised in the book deal respectively with the production and propagation of light, illumination and its measurement, standard light sources, photometry and photometers, light distribution from incandescent sources, incandescent electric lamps, characteristics of incandescent lamps, the eye and the principles of vision, direct and indirect lighting systems, and further illumination calculations. Under each of these headings the treatment is succinct but adequate, and the fifty-nine figures and diagrams are distinctly helpful.

"Incandescent Electric Lamps and their Application." By Daniel H. Ogley, B.Eng. (1st Hons.) Liverpool. With illustrations. London: Longmans, Green and Co., 39, Paternoster Row. Pages xii. + 108, 7½ ins. by 5 ins., price 2s. 6d. net.

## THE BRIGHTON AQUARIUM QUESTION.

The Town Clerk of Brighton (Mr. Hugo Talbot) has issued the report of the special committee appointed by the Town Council in February to consider the best use to be made of the Aquarium site and the future of the Municipal Orchestra. Last year the Corporation decided to promote a Bill in Parliament to raise capital to the extent of £75,000, with additional loans if necessary, to construct an elaborate concert hall and hydropathic establishment on part of the Aquarium property. This scheme was rejected at the statutory meeting of the inhabitants, and in view of the formidable opposition the Bill was abandoned. It then became necessary to consider what provision should be made for the future performances of the Municipal Orchestra. It is proposed to construct a concert hall, to seat 1,200 persons, on the site of the existing auditorium at the east end of the Aquarium, and to remodel the roof of the building so as to form garden terraces and seaside promenades. The estimated cost of the work is £22,000.



## ENQUIRIES ANSWERED.

*Rights of Light Problems.*

W. P. H. (Manchester) writes: "A is the owner of property and lessee of a vacant plot beside it. Adjoining this vacant plot a chapel is in course of erection. All three plots were taken up on a 999 years' lease from one landowner. Windows of the chapel may come within 1 ft. or 6 ft. from A's boundary fence, which is 5 ft. 6 in. high. (1) Can A claim a right of light from the chapel trustees? (2) How many years' possession constitute a right of light or title to land?"

—As all these plots form part of the development of the same estate, it is, I should think, very probable that the leases (or contracts for them) state something with regard to any easements, such as light, and the respective rights of the lessees.

Assuming, however, that these documents are quite silent upon the question, I do not think you need trouble—at all events at present—with regard to the possible acquisition of rights of light by the chapel trustees over your adjacent land.

(1) Should they insert windows which overlook your land in such a way that they may eventually prevent your building upon your plot, you may either (a) put up an obstruction on your own land preventing the acquisition of a right of light over it; or (b) may ask the trustees for the signing of an agreement and the payment of an acknowledgment rental of, say, a shilling a year for their windows so far as they affect you. (2) It takes twenty years' uninterrupted enjoyment of an easement (such as this is) to establish a *prima facie* right to continue to enjoy it—that is to say, it then becomes an "ancient light." As, however, it takes a complete year to prevent the acquisition of such a right, it follows that the person adversely affected must take steps to defeat it within nineteen years of the window first being opened out. F. S. I.

P. W. (Somerset) writes: "The accompanying drawing shows a portion of buildings; No. 1 erected some thirty years ago and No. 2 erected about twelve years ago. My client wished to add a dormer window, shown by thick black line, in the roof of No. 1 in a line with the back of the chimney stacks. Has the occupier of No. 2 any claim against No. 1 for diminution of light, by the erection of the dormer?"

—By the Prescription Act (2 and 3 Will. IV. c. 71) the easement for light to a window cannot be acquired until the light has been enjoyed uninterruptedly for twenty years. It is quite evident, therefore, that No. 2's windows are not "ancient lights."

Unless some other reason exists preventing No. 1 from constructing the dormer

between his chimneys the existence of the windows of No. 2 will not prevent him from doing what he wishes, though one is a little sorry for his neighbour, as the privacy of his bedroom will be invaded.

F. S. I.

## PRESENTATION OF THE R.I.B.A. GOLD MEDAL.

On Monday night, June 22, His Majesty's Gold Medal for the Promotion of Architecture was received, on behalf of M. Jean-Louis Pascal, by M. Charles Roux, secretary of the French Embassy, M. Pascal's advanced age preventing him from coming over from Paris.

Mr. Reginald Blomfield, the President, said the occasion was to do honour to one of the greatest of living French architects. M. Pascal's services rendered to architecture had established for him first place among the living architects of the world, and his name was a household word among the architects of this country. He was born in Paris in 1837 and his training continued up till he was thirty-three years of age, which, the President commented, should be noted in these days of rather superficial training. He had merited the recognition of the French Government, who had availed themselves of his services. The President wished that our Government would follow that example and give promising young architects a chance of showing their individuality, instead of sinking them in the official net. M. Pascal had found time for literary work, which he (the President) was afraid was so much neglected. If M. Pascal could have seen the fine addition to the British Museum by Sir J. Burnet, he would have found that his training was not in vain. During the last sixty years no fewer than ten of M. Pascal's compatriots had been awarded the gold medal and had their names inscribed on the Society's list of honour. They all admired M. Pascal's artistic qualities and the high position he occupied in the professional world. Having read a letter from M. Pascal expressing his pride at the honour conferred upon him, the President handed over the medal to M. Charles Roux.

M. Charles Roux read the reply of M. Pascal in which he said: "I should have liked on this eventful day of a long life, not unacquainted with anxieties and disappointment, to have shown my joy in a manner which could have been fully understood by all. It is for this reason I cannot resist the temptation of saying how grateful I am to my English colleagues for having considered me worthy of such honour, although my sole claim is to be found in a life of hard endeavour in furthering the interests of our beloved art." The remainder of the reply was in French, M. Pascal recalling his first visit to London in 1875. Since then he had passed several vacations in England and become acquainted with many of the architects of the past whose names had become famous—such as Ashpitel, Owen Jones, Digby Wyatt, Alfred Stevens, Donaldson, Cockerell, and Penrose. Later, on a visit to Scotland, he made the acquaintance of Messrs. Aitchison, Alfred Waterhouse, Sir Arthur Blomfield, and Pugin, and afterwards of Norman Shaw. He also referred to many noted Americans, whose Institute had shown their sympathy by a medal similar to that he was receiving that night. He rejoiced to think that all their professors were practical architects. England was the country of liberty, and architects, indeed, gained nothing, as in other

countries, from the spirit of "too much modernity." At all risks it was necessary that their profession should continue to be free, leaving to the future the care of distinguishing between the good grain and the bad. English architects manifested by the award of their medal to a stranger the liberal-mindedness which marked them in every respect. And in asking his Majesty to approve of their award, they gave to that award such a value as made it almost impossible for him to imagine that they should have selected him to be the recipient.

Sir John Burnet moved a vote of thanks to M. Charles Roux, which Mr. W. G. Newton seconded, and it was carried with acclamation.

## LONDON MASTER BUILDERS' ASSOCIATION.

The forty-second annual general meeting of the London Master Builders' Association, which had been unavoidably postponed, was held on June 22, 1914, and was attended by a large number of members.

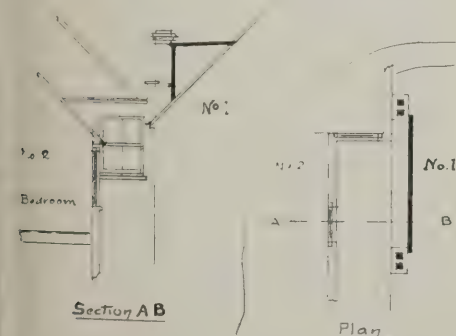
The report of the Council for the year 1913-14, and the audited accounts and balance-sheet for the year ending December 31, 1913, were received and adopted.

The President reported fully upon the position existing as regards the trade dispute, and the action of the Council was duly approved.

Mr. Walter Lawrence, jun., President, and the following officers were re-elected: Mr. W. F. Wallis, Senior Vice-President; Mr. E. J. Hill, Junior Vice-President; Mr. William Downs, Treasurer. The following are the elected members of the Council: Messrs. G. M. Burt (Messrs. John Mowlem and Co., Ltd.), S. J. Dicksee (Messrs. Foster and Dicksee, Ltd.), A. B. Falkner (Messrs. J. W. Falkner and Sons), F. J. Gayer (Messrs. E. A. Roome and Co.), W. Hammond, J.P., R. J. Holliday (Messrs. Holliday and Greenwood, Ltd.), H. T. Holloway (Messrs. Holloway Bros., Ltd.), J. W. Jerram, J. Wolfe King (Messrs. Harris and Wardrop), F. Lown (Messrs. R. D. Lown and Sons), F. M. May (Messrs. Holland and Hannen and Cubitts, Ltd.), F. G. Minter, George Neal, G. H. Parker (Messrs. George Parker and Sons), J. F. Parker (Messrs. Patman and Fotheringham, Ltd.), E. D. Pratt (Messrs. J. and C. Bowyer, Ltd.), W. J. Renshaw, F. P. Rider (Messrs. T. Rider and Son), F. Shingleton, M.V.O. (Messrs. Leslie and Co., Ltd.), F. Thorne, J.P. (Messrs. Fred and T. Thorne), A. W. Turnbull (Messrs. Turnbull and Son), H. Wall (Messrs. Charles Wall, Ltd.), F. J. Walton (Messrs. Ford and Walton, Ltd.), and W. Wood (Messrs. F. and F. J. Wood).

*The New Premises for the Bosch-Magneto Co., Ltd., Tottenham Court Road.*

In the reference to this building in our issue of June 17, p. 425, it should have been stated that the whole of the flooring in the finished portion of the building, with the exception of garage and basement floors, has been laid with "Euboeolith Patent Flooring," by the firm trading under that title (manager, Mr. J. Percy Day, 3, Victoria Street, Westminster). "Euboeolith" flooring is, of course, not "wood," but a patent fireproof jointless flooring of special composition. It has been used in a very large number of hospitals, schools, factories, business buildings, etc., and on H.M. Office of Works, Admiralty, and War Office contracts.



RIGHTS OF LIGHT QUESTION. DIAGRAM BY P. W. (SOMERSET.)



## SPECIAL LEGAL REPORTS.

**Architects' Claim for Extra Work on Competition Designs.***Speir and Beavan v. The Portland U.D. Council.*

June 18. King's Bench Division. Before Mr. Justice Shearman.

This was an action by Messrs. Speir and Beavan, architects, carrying on business at Wharton Street, Cardiff, claiming £82 19s. for professional services rendered to the defendants in connection with the preparation of plans and specifications for new council offices.

The defendants denied liability.

Mr. Graham Mould appeared for the plaintiffs, and Mr. Cecil Walsh, K.C., for the defendants.

Mr. Mould said this action was brought by the plaintiffs to recover a sum of money for services which plaintiffs said they had rendered to the defendants, the Urban District Council of Portland, Dorset. The facts were that in March, 1912, the defendant council were contemplating the erection of new council offices at Portland, and for that purpose they invited architects to submit plans and specifications, subject to certain conditions. The most important condition was that premiums of £50 and £10 were to be awarded to the first and second best designs and that the author of the design placed first was to be appointed the architect to carry out the work, subject to the sanction of the Local Government Board. It was also provided that the £50 should merge in the commission. The plaintiffs' firm and about eighty others competed, and the plaintiffs were awarded the first prize in June, 1912. Then letters were written by the clerk to the council to plaintiffs requiring certain alterations in the plans, and these were entirely independent of the competition. Plaintiffs were therefore entitled to be paid for these alterations, which were no part of the competition. The usual enquiry was held by the Local Government Board in March, 1913, and the inspector who held it reported against the scheme, partly on account of the site, but he also made reference to the existing financial burdens of the council. Upon this plaintiff asked for payment, as the offices were never built. Defendants said they were not responsible, as the liability was contingent on the sanction of the Local Government Board being obtained. Counsel said he had been unable to find any such condition in the advertisement for designs.

Mr. Beavan, one of the plaintiffs, giving evidence, said they had received the £50 for the premium, as there was no commission in which it could merge. What they were suing for now was for extra work done.

For the defendants Mr. Colenutt, clerk to the Portland U.D. Council, said that body never contemplated any payment to the plaintiffs for their services if the scheme for the new offices did not go through. The employment of the plaintiffs was contingent on the sanction of the Local Government Board to the scheme.

The chairman of the Building and Sites Committee was also called, and in cross-examination said the plaintiffs were given to understand that they would not be paid if the scheme did not go through.

His lordship, in giving judgment, said

he had felt great difficulty in deciding the question at issue, but he thought plaintiffs were entitled to £35 14s. for such work as they had done.

Judgment for plaintiffs for that amount, with county court costs.

**Disputed Claim for Extras: Appeal Case.***Holland and Hannen and Cubitts, Ltd., v. Lord Decies.*

June 20. Court of Appeal. Before Lords Justices Buckley, Kennedy, and Phillimore.

This was an appeal by the plaintiffs in the action of Holland and Hannen and Cubitts, Ltd., v. Lord Decies from a reserved judgment of Mr. Justice Bailhache, sitting without a jury in the King's Bench Division on July 31 last. The original parties in the action were Holland and Hannen and Cubitts, Ltd., plaintiffs, v. Lord Decies, defendant; and Lord Decies, plaintiff, v. Holland and Hannen and Cubitts, Ltd., and Horace Farquharson (architect) and Evill and Morle, defendants.

The case was a somewhat involved one. In December, 1910, Lord Decies, of Sefton Park, who was on the point of being married to a lady in America, was desirous of having very extensive alterations done to his residence, involving practically the rebuilding of the drawing-room and the dining-room and the reconstruction of the hall and a bedroom and other alterations. Mr. Farquharson, an architect, submitted plans, of which Lord Decies approved, somewhat hurriedly, before his leaving for America. The estimated cost of the work was from £8,000 to £10,000. The original intention was that the work should be plainly done, but on the return from America of Lord and Lady Decies considerable ornamentation was decided upon. The original estimated cost became greatly exceeded, and in January, 1911, the architect had in bills for £17,000, which quickly went up to £20,000. Mr. Addis, a quantity surveyor, being appointed by Lord Decies' solicitor to go into the particulars. In April, 1912, Mr. Addis reported on £13,500 for work done and material supplied, and Lord Decies declined to pay any more until a further report. The builders issued a writ for £6,000. A preliminary point was decided in favour of the builders, and as there were other questions left outstanding, Mr. Farquharson and Messrs. Evill and Morle were brought into the action and made defendants to the counterclaim of Lord Decies against the builders. After numerous interlocutory proceedings the matter came on for trial, and, in his reserved judgment, Mr. Justice Bailhache came to the conclusion that there was no foundation whatever for any allegations of collusion on the part of Mr. Farquharson and Messrs. Evill and Morle. In the result Messrs. Holland and Hannen and Cubitts, Ltd., in the original action would recover £7,035—certain sums were added since the issue of the writ—against Lord Decies, and they were given the costs of the action. Lord Decies recovered judgment against Messrs. Holland and Hannen and Cubitts, Ltd., for £5,121 5s. 7d., and Lord Decies would have the costs of the counterclaim. There would be judgment against Mr. Farquharson for £350, and he must pay the small costs attributable to his negligence, but he would get the costs

on the other issues. Messrs. Evill and Morle would only pay their own costs.

Mr. Leslie Scott, K.C. opening the case for the appellants, said he contended that, taking everything into account, all that his lordship should have given against his clients was £1,600. That was all the judge could find on a proper adjustment of the figures, therefore he contended that the judgment could not stand. It was not enough for the judge to say, as he did in this case, he was going to stretch some figures in favour of the appellants and some against them.

Lord Justice Buckley said what the judge declined to go into was details of the quality of this brick or that, and the difference in price, but he considered what was the outcome of the whole thing. He looked at the whole of the work done to the house.

Mr. Scott said his lordship did not find that the bricks were bad, but he thought they were not technically in accordance with the contract. He submitted that technically they were. He did not, however, care about that. That was only a little item, but, taking all the variations in the figures, the judge was not justified in allowing Lord Decies such an item as £4,000.

Mr. Waugh, K.C., for Lord Decies, contended that the judge had arrived at a correct decision.

After luncheon on Wednesday Lord Justice Buckley said they had had an opportunity of consulting Mr. Justice Bailhache respecting the £4,000 allowed, or inferred to be allowed, by his judgment. He informed them that they must take the approximate figures. Without committing himself to exact figures, Mr. Justice Bailhache said he allowed £500 for dislodgment, something over £1,000 for vibration, and the balance was for night work charges, work not done, and bad joinery and so on. Counsel must not, therefore, infer that the £4,000 was for bad work.

At the conclusion of Mr. Leslie Scott's address,

Lord Justice Buckley delivered judgment. He said that this was more a case for an official referee. Mr. Justice Bailhache had gone into all the items thoroughly, exhaustively, and at great length. After he had done that he said he did not intend to give any details of how his figures were made up or how he arrived at them. The learned judge said he did not say the figures were absolutely accurate, but he had disregarded all trivial matters. Though the learned judge had not given all the small items, he said he was satisfied he had arrived at a proper total. That Court did not sit there to investigate whether an item should be £10 or £5, but to decide questions of principle and substance. There was no question of law involved in this case. There was no question of principle involved. The whole question was one of figures, total, and quantum—such work, as he had said, as was done by an official referee. He did not think it the duty of that Court to sit there for five days to consider such a matter. He was satisfied Mr. Justice Bailhache was right. He had decided on a question of quantum of total, and it was not the business of that Court to review his judgment. The appeal must be dismissed, with costs.

The other lords justices concurred.



## UNIVERSITY OF LONDON SCHOOL OF ARCHITECTURE: CONVERSAZIONE.

On June 23 a distinguished company assembled at the School of Architecture of the University of London upon the occasion of a *conversazione* in the new buildings of the school (of which an illustrated description is given on pp. 6-9), when Prince Arthur of Connaught visited the school and inspected the building and expressed his pleasure at the arrangements which had been made for the carrying on of the work of instruction there. Amongst the leading architects present were Mr. H. Percy Adams, Mr. Reginald Blomfield (President of the Royal Institute of British Architects), Mr. Arthur T. Bolton, Sir John J. Burnet, Mr. C. McArthur Butler (of the Society of Architects), Mr. Henry T. Hare, and Mr. Edwin L. Luytens. There were a large number of interesting exhibits, including a fine collection of the engravings of Piranesi.

A series of short lectures in the Architecture Theatre attracted a large attendance.

### *Professor Adshead on Town-planning.*

Professor S. D. Adshead, F.R.I.B.A., lectured on "Some Absurdities in Town-planning," and observed that scarcely anybody had studied town-planning more than ten years, and, bearing this in mind, he would give them a series of contrasts. Let them take the pretty towns of Germany and look at some of the Liverpool roads, which had been laid out under the 1875 Public Health Act. In one case they had the pretty gardens in front of the houses, and in the other a long main road of houses, 40 ft. wide, that was only used by milk carts and coal lorries. The contrasts were town-planning with by-laws and town-planning where reasonable regard was had to the beauty of surroundings. Belfast was a city where one could clearly see where the '75 Act came into operation. In the case of New York and Philadelphia there was no town-planning, but there was a conception of vistral planning in the case of Berlin and Paris. The lecturer commented on the first premiated design of Mr. W. B. Griffin for the new Australian capital, and thought there were many grave defects in its conception. In town-planning the great difficulty was what to do with our country lanes. He advocated the making of our country roads, the main roads, very wide, with a wide stretch of grass on either side and trees beyond, and then there would be no danger in travelling at fifty miles an hour along them, as we could see where we were going. What they had to fight against in town-planning was obstructions in open spaces. As an instance of this, he showed a picture of Hull, where an open space was obstructed with a number of municipal structures. We had no idea of open spaces, and in evidence of this he showed some of the open spaces of towns in Germany. He characterised the archway at the top of Constitution Hill as merely a pedestal for the figures it bore in the place of the ornamental archway originally designed. He warned architects not to try "to colour" a house, but to get beauty by flowers in front and around it.

### *Mr. A. E. Richardson on Cockerell.*

Mr. A. E. Richardson, F.R.I.B.A., spoke on "Some Aspects of Professor Cockerell's Work." Professor Cockerell, he said, had great admiration for Christopher Wren's work, and for his own work

took Wren's models as a basis. Cockerell's Classic designs were remarkable for their refined proportions, and the speaker ventured to think that Cockerell's addition to the Bank of England was an improvement of Soanes's design, and gave that building its present dignified look.

### *Mr. Gotch on "Our Countryside."*

Mr. J. A. Gotch, F.S.A., F.R.I.B.A., in "Our Countryside," took his hearers for a long country jaunt from Kettering through the surrounding district of the shire, visiting the many famous buildings in and around it. Drayton House was dealt with in detail, and its architectural merits were analysed. The remarkably fine Elizabethan cellars were worthy of note. Rush-ton Kirby and the seat of the late Earl Cardigan were also described.

Professor F. M. Simpson, F.R.I.B.A., brought the series of short lectures to a conclusion with an interesting description of the fine Châteaux in the Loire Valley.

## COMPETITIONS.

### *New Park at Liverpool.*

Designs are invited for the laying out of the Walton Hall Estate as a public park and recreation ground. Premiums of one hundred, fifty, and twenty-five guineas respectively are offered for the designs placed first, second, and third. A general plan is required to a scale of 100 ft. to an inch, accompanied by a sketch bird's-eye view, also  $\frac{1}{4}$ th scale drawings of all buildings proposed to be erected. About 70 acres is to be used as recreation ground for games, the remainder, of about 60 $\frac{1}{2}$  acres, to be laid out as an ornamental park. Included in the scheme is a superintendent's house, a park-keeper's lodge, with shelters, conveniences, band-stand, greenhouses, fountains. Provision is to be made for a boating lake of about 6 acres in extent.

Conditions of the competition and plan of site are obtainable from the Town Clerk, Municipal Offices, Liverpool. Designs to be sent in not later than September 1, 1914.

### *Housing Scheme, Cardiff.*

At a meeting of the Cardiff Housing Committee on Friday, June 12, under the presidency of the Lord Mayor, it was decided to withdraw the offer to consider plans by local architects and to appoint a sub-committee to act with the City Engineer in preparing a housing scheme for the consideration of the committee. This, it is stated, is in consequence of an action taken by the local society of architects complaining about the unsatisfactory terms of the competition. At the same meeting the Lord Mayor said that 1,200 to 1,500 houses were wanted in the city—300 immediately. A councillor asked if the committee would not decide to accept the Portmanmoor Road site. There was an impression abroad that they were shelving the matter and it was therefore incumbent on the committee to press forward with the scheme as quickly as possible.

### *Baths, Washhouses, and Branch Library, Deptford.*

The Baths and Washhouses and Public Libraries Joint Committee of Deptford Borough Council have recommended the Council to hold an architectural competition with respect to a proposal for erecting baths, washhouses, and a branch library in Evelyn Street, which commemorates the name of John Evelyn, the Diarist.

### *Hospital for Tuberculosis, Southend-on-Sea.*

Application is to be made by the Southend-on-Sea Town Council for a Local Government Board grant towards the purchase of eighteen acres as a site for a new tuberculosis hospital, for which the medical officer of health (Dr. Pugh) and the borough surveyor (Mr. E. J. Elford) have been instructed to obtain competitive designs.

## TRADE AND CRAFT.

### *Asbestos Cement Tiles and Sheets.*

The process of forming slates for roofing purposes and sheets for the lining of walls and ceilings out of a combination of asbestos and cement was originally invented by an Austrian named Hatchek, and of late years in England this material has come into high favour with architects and builders. Asbestos-cement slates of approved make improve with age. They are more than twenty times stronger than natural slates, and, being lighter in weight and also cheaper, they are more economical than ordinary slating.

Asbestos-cement tiles and sheets are very effectively used in gasworks, retort houses, tannery buildings, drill-halls, farm buildings, railway sheds, cricket and tennis pavilions, and the material has attained to so high a standard that the Local Government Board have withdrawn their opposition to the use of asbestos-cement slates on workmen's dwellings and other buildings on which they are granting loans. Moreover, the material being fire-proof, non-conductive, and germ-proof, the L.G.B. have agreed to its use in sanatoria and isolation hospitals that are being erected under the Insurance Act. Wherever asbestos-cement slates or sheets of approved brand and guaranteed quality have been used they have given the utmost satisfaction. Among the brands that have this guarantee is that of Wilson and Co., of 79, Queen Street, London, whose trademark is "Wilsasbestile." This firm have been successful in securing some of the most important contracts for asbestos cement slates and sheets, and they attribute their success entirely to the fact that the material they are offering is of the best manufacture under the original patents, and composed of the best Portland cement and asbestos fibre, and they also make a point of ensuring the best workmanship. We are informed that during the past twelve months this firm have carried out Government contracts for upwards of 2,000,000 ft. of sheeting and 160,000 ft. of roofing.

Messrs. Wilson and Co. have secured a contract for all the asbestos-cement sheets required on the new seaplane sheds at Eastchurch and Isle of Grain for the Admiralty. The amount of material required will be close upon 20,000 ft.

### *The Lighting of Bandstands.*

The usual method of lighting bandstands is to hang two or three bare lamps from the ceiling for the benefit of the musicians, while the exterior of the bandstand is outlined with miniature electric lamps of various colours. The generally unsuccessful attempts of the musicians to arrange their stands so that the music is not overcast by dark shadows cause more annoyance than amusement. They do things better at Coventry, where may be seen the first installation of B.T.H. "Eye-



Rest" lighting in a band-stand. The installation consists of a single composition bowl "Eye-Rest" fitting equipped with Mazda lamps and X-Ray reflectors suspended from the centre of the white ceiling. The illumination is ideal for the purpose. It is brilliant, yet absolutely glareless, and, of course, there are no inconvenient shadows.

At night the appearance of the band-stand is at once attractive and restful; attractive, because the illumination is cheerfully brilliant; and restful, because there are no lamps in sight and people can look at the band without injuring their eyes or spoiling their appreciation of the music. An interesting point about this installation is that the underside of the bowl of the "Eye-Rest" fitting does not appear dark by contrast with the brightly lighted ceiling. Indeed, in a night photograph which has been taken there is practically no contrast at all.

From the musicians' point of view the main advantage of the "Eye-Rest" lighting is that they can read the music more easily, because, no matter in what position the stands may be, it is impossible to cast a shadow on the score. The conductors and musicians of two of the bands which play in the Coventry Band-stand (the Black Watch and the King's Royal Rifles) have stated that the "Eye-Rest" lighting is far and away the finest artificial illumination they have so far experienced.

#### *Damp-courses and Roofing.*

Messrs. Claridge's asphalt has been specified for damp-courses and roofing at the London County and Westminster Bank premises, Pulborough.

#### *A Correction.*

In a few copies of our issue of June 17 part of the inscription was omitted from the illustration to the advertisement (p. vii.) of Messrs. the Glidden Varnish Company, 86, Clerkenwell Road, London, E.C. It should have been stated that the building shown was the Newcastle-on-Tyne Hippodrome, for which Glidden No. 1 Liquid Cement Coating was specified by the architect, Mr. J. Emblin-Walker.

### NEWS ITEMS.

#### *Architects' Benevolent Society: Handsome Donation.*

A friend of the Architects' Benevolent Society, who desires to remain anonymous, and who has for many years been interested in the work of the society, has just presented a donation of £1,000 to the funds.

#### *Surveyors' Institution Garden Party.*

The President, Mr. H. Chatfield Clarke, and Council of the Surveyors' Institution held a garden party at the Zoological Gardens on June 26. The President and Mrs. Chatfield Clarke received the guests in the library, tea being served on the Great Lawn, which was reserved for their use. The band of the Irish Guards, under the direction of Lieutenant Hassall, was in attendance. More than sixteen hundred guests were present.

#### *Hundred Years' Peace Memorial.*

The attention of His Majesty having been called to the proposal to build an American church in London in celebration of the Hundred Years' Peace between the two great English-speaking countries, the following letter has been received from Lord Stamfordham: "His Majesty the King is interested to hear of the intended establishment in London of an American

church as a memorial to the Hundred Years' Peace between England and America."

#### *The New Way with Foundation Stones.*

The King and Queen last week visited Hull and proclaimed that henceforth the chief magistrate of this city shall bear the title of Lord Mayor of Kingston-upon-Hull. While in the City Hall the King, at the invitation of the Mayor, manipulated a gold lever, by which His Majesty laid the foundation stone of the new sanatorium, the site of which is four miles from the hall. The release of the lever completed a circuit of electricity which passed over a wire to the site and fused the support holding the foundation stone weighing half a ton, which then dropped into position. The sanatorium is to be erected at a cost of £20,000. Her Majesty in similar manner laid the foundation stone of the new Girls' Secondary School, which is to cost £25,000.

### NEW LONDON BY-LAWS FOR THE REGULATION OF LAMPS, SIGNS, ETC.

In a report, dated June 22, of the Building Acts Committee of the London County Council, it is noted that on November 18, 1913, the council, under the authority conferred on it by section 164 of the London Building Act, 1894, made by-laws for the regulation of lamps, signs, or other structures overhanging the public way not being within the City of London. Copies of the by-laws were then sent to the Local Government Board for allowance. A copy of the by-laws was also sent to each metropolitan borough council, the Ecclesiastical Commissioners, the Royal Institute of British Architects, the Surveyors' Institution, the London Chamber of Commerce (Incorporated), and the Institute of Builders, as required by the Act, and also to the Incorporated Society of London Meat Trades, the Chelsea Tradesmen's Association, and the Borough of Fulham Tradesmen's Association, as desired by the Local Government Board. The Board has now intimated that the by-laws have been considered in connection with the observations forwarded by local and other authorities concerned. It is suggested that a proviso should be added to by-law No. 1 exempting from the operation of the by-laws cases of re-erection or replacement of any lamp or structure supporting or carrying the same, or the substitution of any lamp or structure supporting or carrying the same for an existing lamp or structure, where the lamp or structure has been fixed or fitted before the date of confirmation of the by-laws; and further, that the local authority should be given seven days' instead of two days' clear notice of intention to fix or fit any lamp, sign, or other structure coming within the scope of the by-laws. These modifications, together with one or two others of a minor character which have been suggested by the Board, have been approved by the committee and recommended to the council for acceptance.

If the council approves the by-laws as amended, it will be necessary for them to be confirmed at a subsequent meeting and for the preliminary requirements of section 164 of the London Building Act, 1894, to be complied with anew. The Local Government Board should also be asked to fix a date on which the by-laws, which are not retrospective, will come into force.

The recommendation came before the Council yesterday.

### THE BUILDING TRADE CRISIS.

At a meeting of the Executive Council of the National Federation of Building Trades Employers of Great Britain and Ireland, on June 23, it was resolved to take a ballot of the members as to the desirability of calling a general lock-out in the building trades in accordance with the resolution of May 11.

On June 24 the District and Management Committees of the London Building Industries Federation passed the following resolution: "That all sections of the London Building Industries' Federation make an effort to arrange for a conference with the London Master Builders' Association at the earliest opportunity, and each section arrange for a settlement for its members, and no section resume work until all sections have arrived at a settlement."

It is understood that the masons have since met the L.M.B.A. in conference, but the proceedings are not yet made public.

#### *Better Balloting at Darlington.*

The dispute in the Darlington building trades, which had lasted about four weeks, and brought the building trade to a standstill, throwing a thousand men out of work, has at last been settled, and the men will return to work as the employers can take them. The men's first ballot on the terms of settlement was found to be not of a representative nature owing to the small number voting, but by a second ballot 486 men had voted for a resumption and only 01 out of the thousand affected voted against.

### PROJECTED NEW WORKS.

#### *Workmen's Dwellings, Foleshill.*

The Foleshill Guardians and Rural District Council have approved details submitted by the surveyor (Mr. A. E. Newey) for the erection of sixty workmen's dwellings in Bedworth and Foleshill. Tenders are to be invited when the building dispute is settled.

#### *Workmen's Dwellings, Wem.*

The Wem (Shropshire) Rural District Council are considering the advisability of erecting working-class dwellings in certain parts of their district, under the provisions of the Housing Acts, and have invited owners of property in the district to offer them sites, each containing about a quarter of an acre or thereabouts, suitable for the erection thereon of two working-class dwellings.

#### *Cottages, Eastbourne.*

The Eastbourne Town Council have accepted two sites offered by the Duke of Devonshire for the erection of workmen's dwellings and 143 are to be built at once. The cottages will be semi-detached, with tiled roofs, and will cost £210 and £205 each respectively.

#### *Buildings, Easington.*

The Easington Rural District Council have approved the following plans: Two houses, Salter's Lane, Wingate, for the Durham Estates, Ltd.; house, Shotton Colliery, for Mr. S. Chapman; Church and Schools, Wheatley Hill, for the trustees; house, Wheatley Hill, for Mr. Thompson; alterations, Station Hotel, South Hetton, for Messrs. J. Mimmo and Son; two houses and shop, Seaside Lane, for Mr. G. Sinclair; and two houses, Glebe Estate, for Mr. Sinclair.

*Continued on page xx.*



**THE KAHN SYSTEM of  
REINFORCED CONCRETE  
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*An Example of*  
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NEW MOTOR CAR WORKS for Messrs. Arrol Johnston, Ltd., Dumfries

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The entire building is in Reinforced Concrete, except the wall panels, which are built of red brick. The building occupies an area of about 310 ft. by 310 ft.

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*N.B.—The T.C.S.C. will be glad to collaborate with Architects on any construction, and place at their disposal the skill and experience of their Engineering Staff, and invite enquiries for their Handbook and Literature.*



## PROJECTED NEW WORKS.

*Continued from page 18.**Service Reservoir, Margate.*

Margate Town Council have given statutory notice of their intention to construct a service reservoir to hold 2,000,000 gallons of water at Fleete.

*Library, Ipswich.*

The Ipswich Corporation have been presented with a site in Northgate Street for the erection of a new library, and are in communication with the Carnegie United Kingdom Trust as to the erection of a building.

*Housing, Great Harwood.*

At the last meeting of the Great Harwood Urban District Council a resolution was passed pledging the council to take into immediate consideration the advisability of erecting a number of houses under the Housing and Town Planning Act, 1909. At least 140 houses are contemplated.

*New Clubhouse, Darlington.*

New premises in Salter's Lane, Darlington, for Harrowgate Hill Club and Institute have been erected at a cost of about £3,500, by Messrs. R. Blackett and Son, to the design of Mr. G. Walesby Davis. The large hall will accommodate 500.

*Garden City, Chester.*

The Housing Committee of Chester Corporation are proceeding with the development of a scheme for the erection of about 130 workmen's dwellings on garden city lines on the portion of the Buddicom estate, Saltney, recently purchased by the corporation. It is proposed to proceed in the first instance with the erection of fifty houses.

*New Church, Walworth.*

Plans of a new church to be erected in Lorrimore Road, Walworth, have been deposited with the London County Council. The building will be erected on the site of 99, 101, and 103, Lorrimore Road, and is to replace the present temporary church used by the Roman Catholic residents of the district.

*Housing Scheme, Stamford.*

Stamford Town Council, at a special meeting, decided to proceed with a municipal housing scheme which provides for the erection of twenty-four houses, each of five rooms, on one-and-a-tenth acre abutting on Conduit Road, belonging to the Marquis of Exeter, at £145 each. Plans have been prepared by the Borough Surveyor.

*Town-planning, Barnes.*

Barnes Urban District Council intimate that, as there seemed some doubt of the intention of the Duke of Devonshire to lay out the land between Burlington Lane and the river opposite Barnes, in accordance with the plan submitted some time since, they have decided to apply to the Local Government Board for permission to prepare a town-planning scheme in respect of the land between Burlington Lane and the river opposite Barnes. The scheme is opposed by Chiswick U.D.C.

*London.*

Subject to compliance with certain specified conditions, consent has been given by the L.C.C. to the following works:

Fulham.—Erection of bay windows and porches to houses on both sides of Bowfell Road, Spelwich Road, and Colwith Road, Fulham, and bargeboards to houses on the north side of Wingrave Road, on application of Allan and Norris.

Hampstead.—Erection of a building at the Royal Soldiers' Daughters' Home, High Street, Hampstead, on application of Spalding and Meyers on behalf of the Committee of the Home.—Erection of a one-storey addition at No. 15, College Crescent, Hampstead, on application of F. S. Hammond.

Kensington.—Erection of a bay window in front and covered way at rear of No. 64, Bedford Gardens, Kensington, on application of E. W. Marshall, for Sir T. Heath, K.C.B.

Kensington.—Alterations at 34 and 36, Bosworth Road, Kensington, on the application of J. Lawrence, for J. W. Chapman.

Marylebone E.—Erection of iron and glass shelter at entrance to Philharmonic Hall, Great Portland Street, Marylebone, on application by T. W. Vaughan and Co., Limited, for Chevalier Bocchi.

Marylebone.—Erection of a building on the sites of 92 and 94, Hallam Street, Marylebone, on application of P. Hoffmann, for C. E. Peczenik.

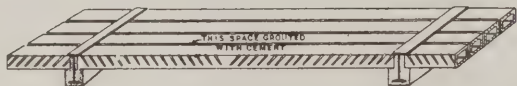
Paddington.—Erection of an additional storey at 49, Porchester Terrace, Paddington, on application of H. M. Fletcher, for J. F. Beale.

Strand.—Alterations at the generating station, Carnaby Street, Golden Square, for the St. James's and Pall Mall Electric Light Company, Ltd.

Whitechapel.—Erection of a temporary building at the London Hospital, Turner Street, Whitechapel, on application of J. G. Oatby, for the Governors.

Woolwich.—Erection of buildings on the eastern side of May Place Lane and the Western side of Princes Road, Woolwich, on application of Whincop and Parnell, for W. and J. Sutch.

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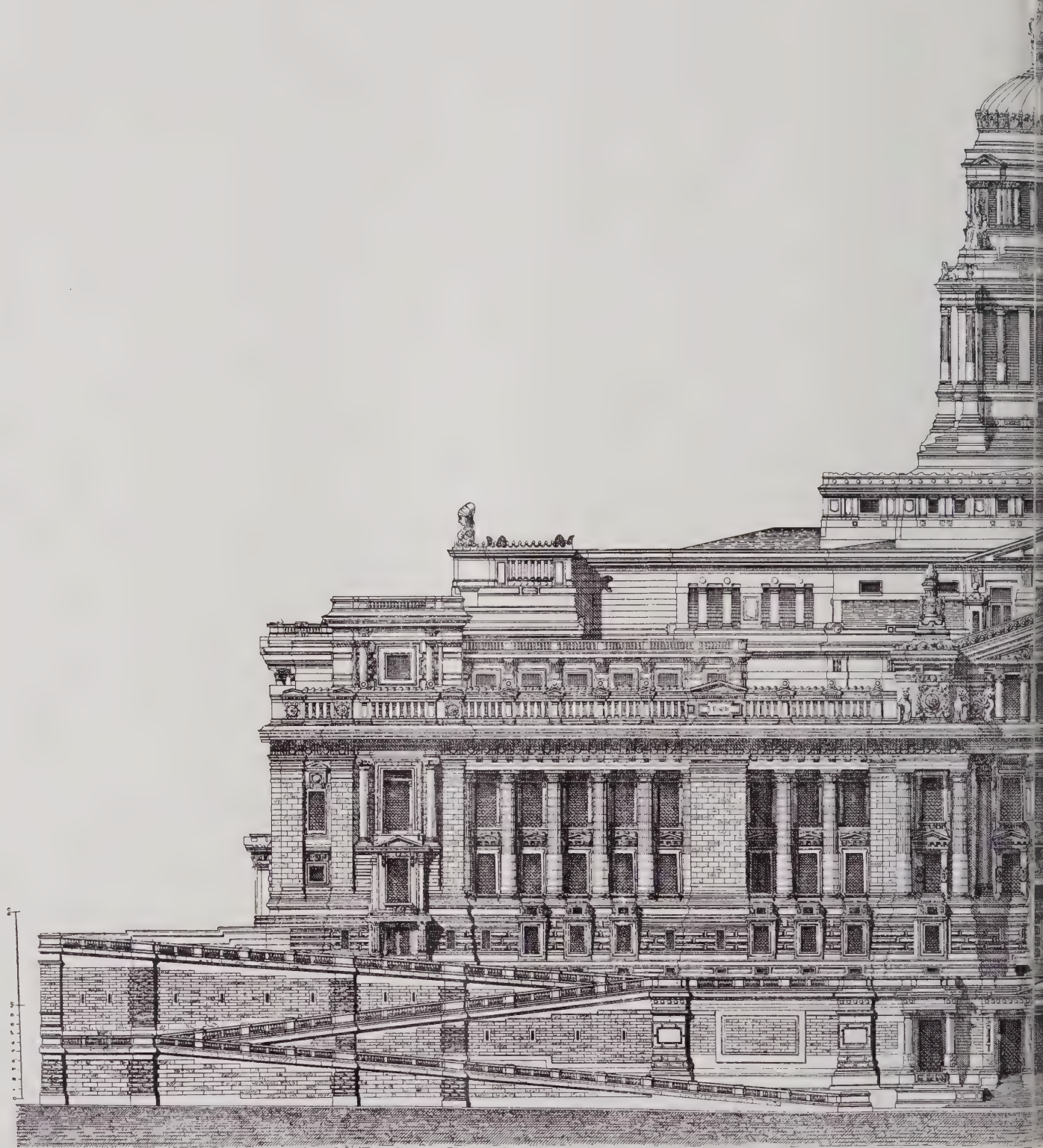
NEW WAREHOUSE, BIRMINGHAM.

View looking up through staircase well, showing the construction.



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OF THE  
UNIVERSITY OF TORONTO

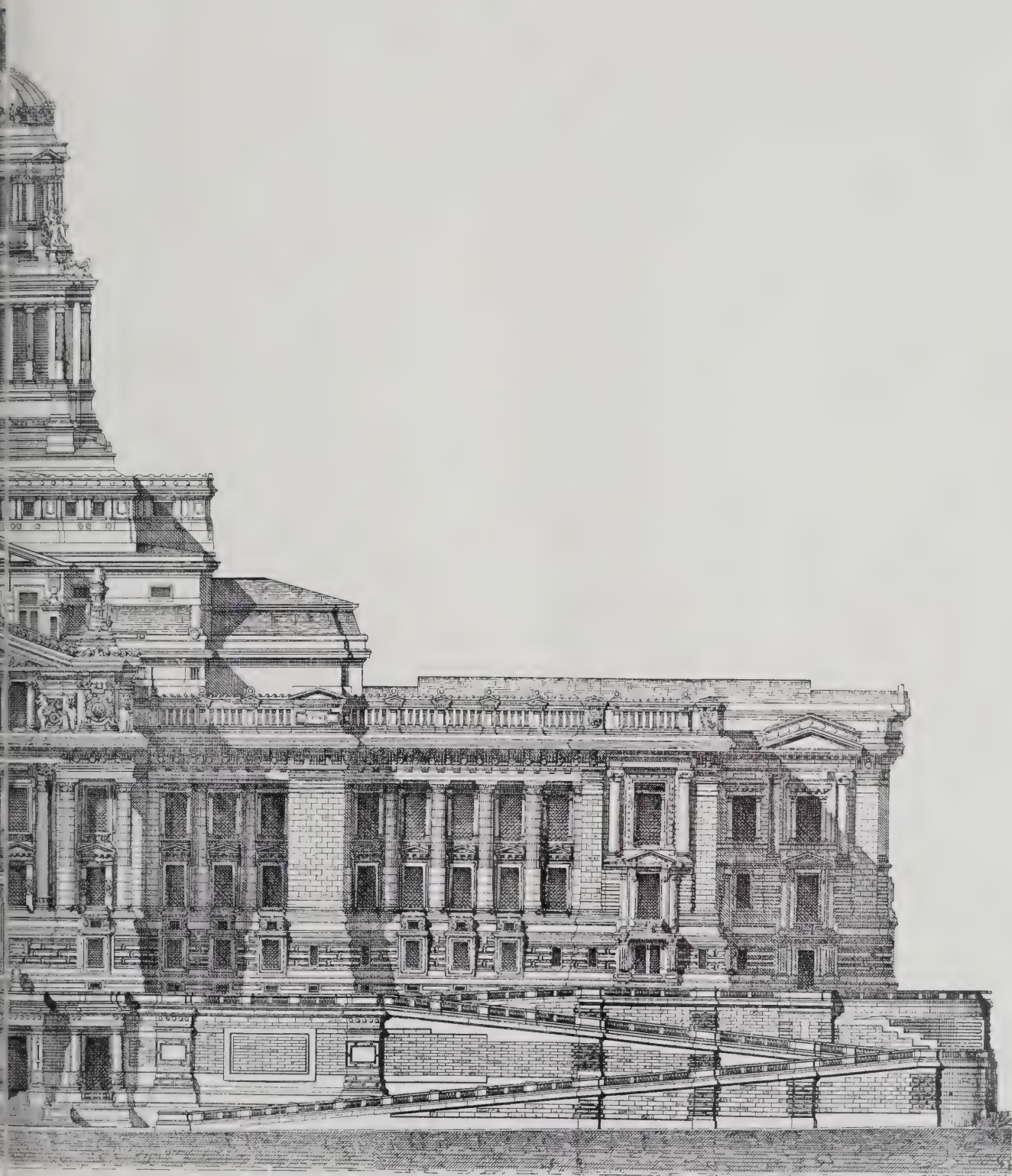




THE PALAIS DE JUSTICE, BRUSSELS

J. POELAER





V.—REAR ELEVATION.

TECT.



PROPERTY  
OF THE  
LIBRARY OF CONGRESS





VASES. V.—LOUIS XVI. VASE IN THE GRAND TRIANON, VERSAILLES.



THE  
UNIVERSITY OF  
CHICAGO



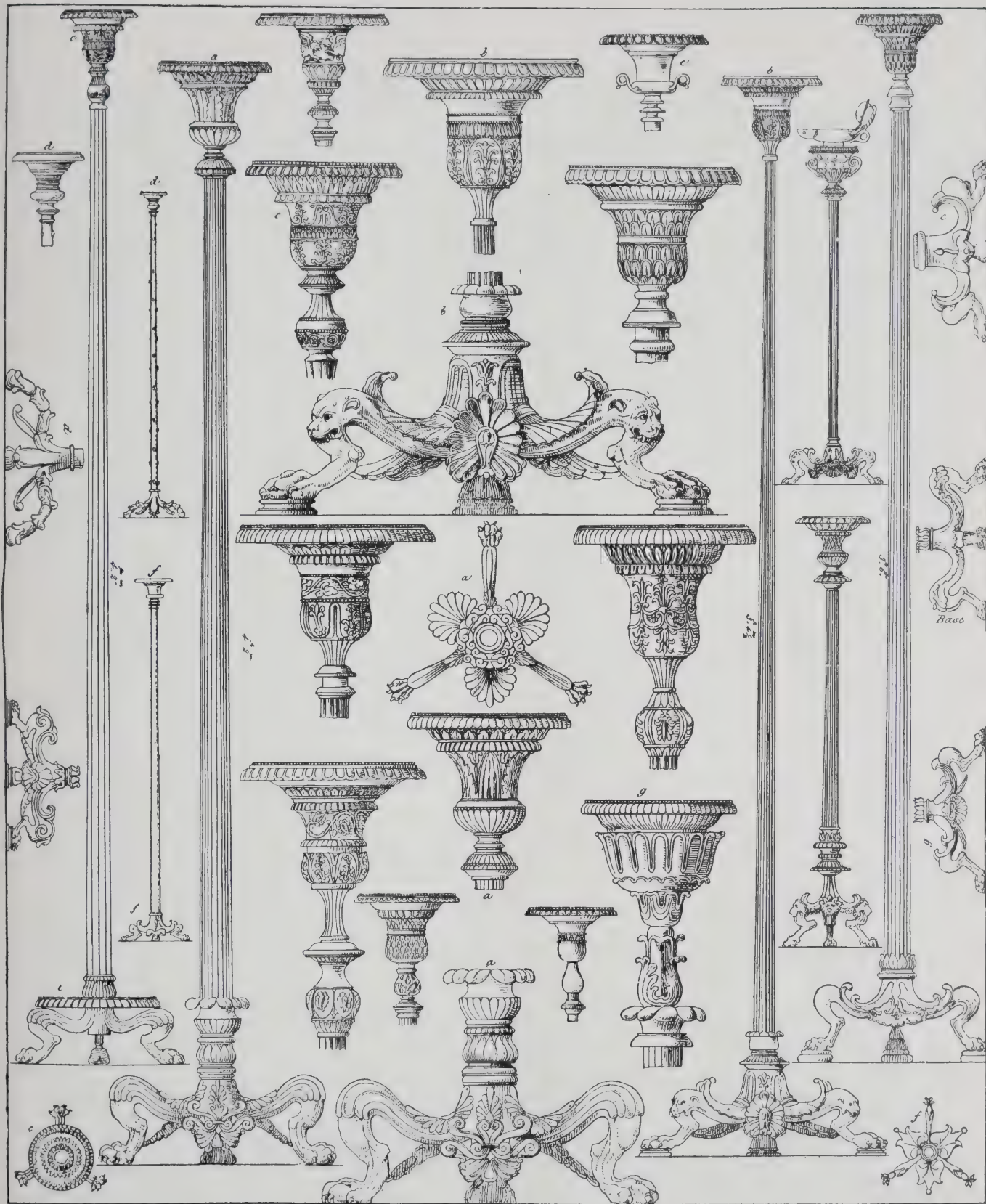


SMALL HOUSES OF THE LATE GEORGIAN PERIOD. XV.—HOUSE ON THE HAGLEY ROAD, BIRMINGHAM.



50



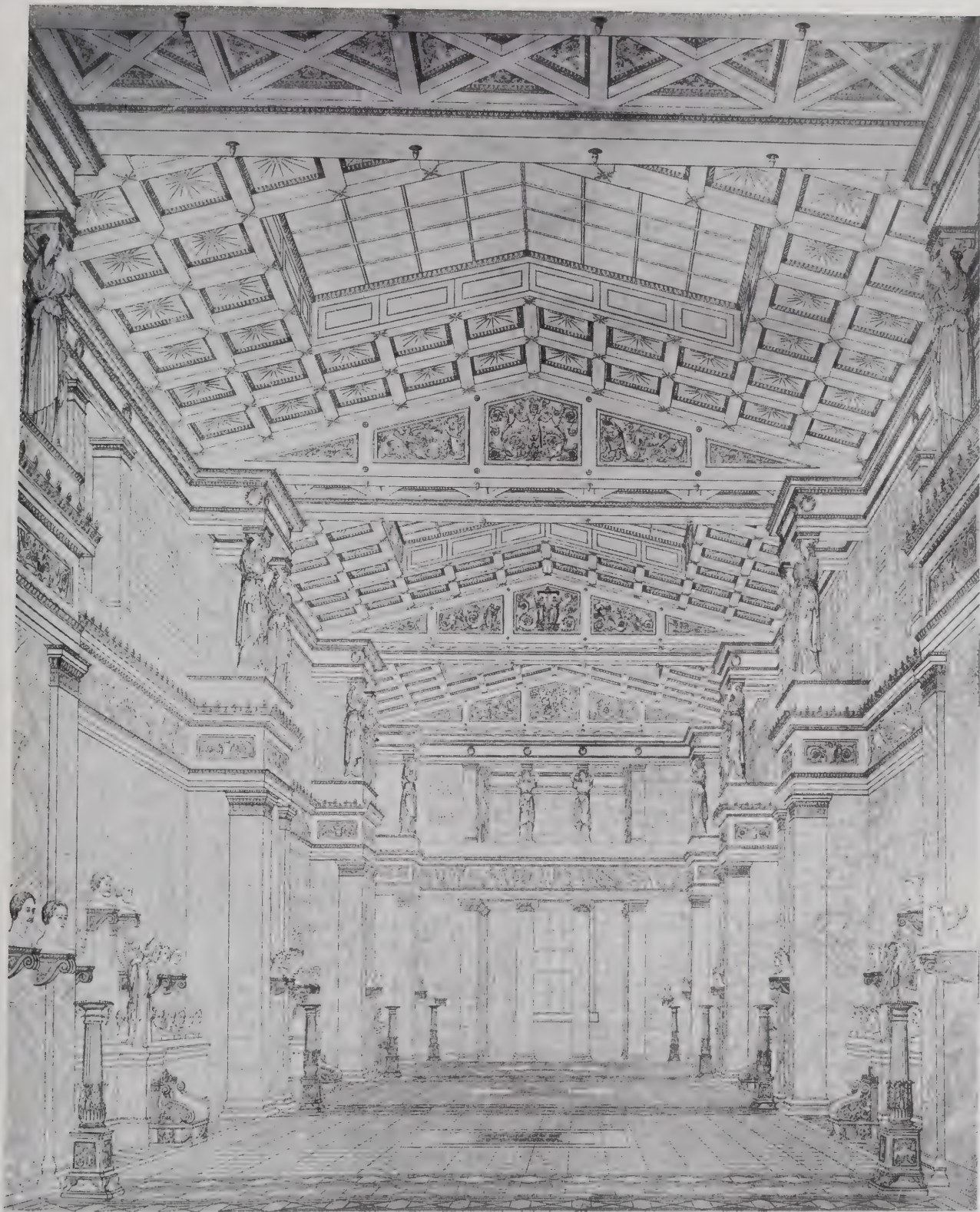


COTTINGHAM'S DESIGNS FOR IRONWORK. XVII.—LAMP STANDS, CANDELABRA, ETC.



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OF THE  
SOVEREIGNTY OF





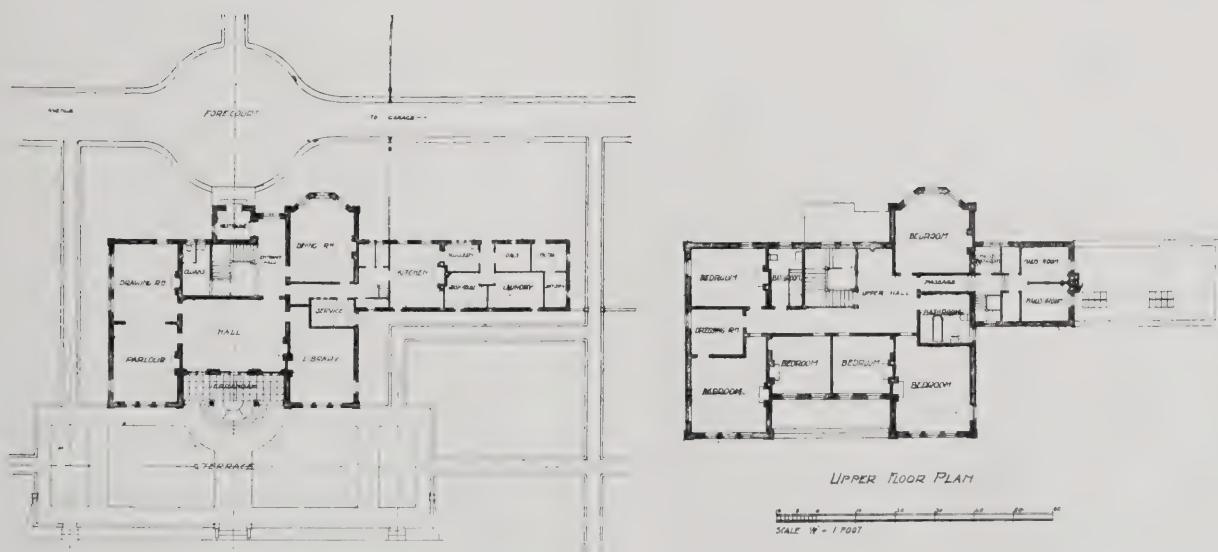
MONUMENTAL ARCHITECTURE. XXIV.—THE VALHALLA, REGENBURG, BAVARIA.

VON KLENZE, ARCHITECT.



THE  
W. T.  
LIBRARY





MODERN DOMESTIC ARCHITECTURE. XXVII.—"BARCAPLE," PATTERTON, NEWTON MEARNS, GLASGOW.  
WATSON AND SALMOND, FF.R.I.B.A., ARCHITECTS.



100



PRACTICAL CHART OF TOWN PLANNING PROCEDURE.

FOR SCHEMES PREPARED BY OWNERS AND PROPOSED TO BE ADOPTED BY LOCAL AUTHORITIES IN ENGLAND AND WALES UNDER THE HOUSING, TOWN PLANNING, &c., ACT, 1909.

Showing the Detailed Steps of the Various Stages in the Promotion of such Schemes in Accordance with the Town Planning Procedure Regulations (England and Wales), 1910. Compiled by R IVESON DENHAM, *Assistant Solicitor to the Corporation of Huddersfield*, and L. ST. G. WILKINSON, M.Sc., A.M.I.C.E., *an Assistant Engineer to the Corporation of Huddersfield*.

ABBREVIATIONS.—L.A. = Local Authority. L.G.B. = Local Government Board. C.C. = County Council. Article or Art. = The Articles of the Town Planning Procedure Regulations (England and Wales), 1910. Act of 1909 = The Housing, Town Planning, &c., Act, 1909. Scheme = An Owner's Scheme proposed to be Adopted by an L.A. under the Act of 1909. Authorities for the various Steps appear in Square Brackets and Cross References to the various Columns appear in Round Brackets.

| No. and Nature of Stage.<br>Column 1.                                                                      | Resolutions of L.A.<br>Column 2.                                                                                                                                                                                                                                                                                                             | Meetings and Conferences.                                                                                                              |                                                                                                                                                                                                                              | Maps and Documents Deposited for Public Inspection.<br>Column 5.                                                                                                                                                                                                                                                                                                                 | Information to be Furnished to L.G.B. by Clerk to L.A. |                                         | Action by L.G.B.<br>Column 7. |
|------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|-----------------------------------------|-------------------------------|
|                                                                                                            |                                                                                                                                                                                                                                                                                                                                              | Nature.<br>Column 4a.                                                                                                                  | How Summoned.<br>Column 4b.                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                  | Prepared by Surveyor.<br>Column 6a.                    | Prepared by Clerk to L.A.<br>Column 6b. |                               |
| STAGE 4.<br>Consideration of proposal of L.A. to adopt scheme and to apply to L.G.B. for approval of same. | When Scheme fully considered Resolution to be passed by L.A. approving scheme and authorising same to be printed with Memorandum of Modifications by L.A. (if any), and authorising Map No. 4 to be obtained and also authorising Town Planning Committee to take the necessary proceedings set out in Articles xvi. and xvii.<br>[Art. xv.] | (a) Meeting of all Owners, Persons, and Councils interested.<br>[Arts. xvii. and iii.]                                                 | (a) By notice served at least FOURTEEN DAYS before meeting.<br>[Arts. xvii. and iii.]<br><br>Send notice of Meeting where necessary to (1) Board of Agriculture and Fisheries; (2) Commissioners of Works.<br>[Art. xxviii.] | Not later than first Notice served under Article xvi. (a) deposit Scheme and Memorandum of Modifications (if any) together with Map No. 4 for free inspection and explanation at convenient place and keep deposited for TWENTY-ONE DAYS from last Notice served under Art. xvi. (a) during which time objections in writing may be made under Art. xvi. (c).<br>[Art. xvi. (b)] |                                                        |                                         |                               |
|                                                                                                            |                                                                                                                                                                                                                                                                                                                                              | (b) Conferences with Owners, Persons, and Councils interested to consider objections and secure co-operation.<br>[Arts. xvii and iii.] | (b) As required by Officers concerned of L.A.<br><br>[Arts. xvii and iii.]                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                  |                                                        |                                         |                               |
|                                                                                                            |                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                        | (c) Conferences with Owners, Persons, and Councils interested to consider objections and secure co-operation.<br>[Art. xvi. (a) and (c)]                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                  |                                                        |                                         |                               |
|                                                                                                            |                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                        | (c) Advertise notice of such proposal in Local Paper.<br>[Art. xxviii.]                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                  |                                                        |                                         |                               |
|                                                                                                            |                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                        | (d) Send similar notice, where necessary, to (1) Board of Agriculture and Fisheries; (2) Commissioners of Works.<br>[Art. xvi. (a) and (c)]                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                  |                                                        |                                         |                               |



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*(From Piranesi.)*



# THE ARCHITECTS' & BUILDERS' JOURNAL.

JULY 8, 1914.

CAXTON HOUSE, WESTMINSTER.

VOLUME 40. No. 1018.

## EDITORIAL.

IN an article on the recent St. Paul's Bridge Competition, "The Times" suggested that bridge design should be left to the engineers, the architect being called in—if at all—to clothe the engineering construction with architectural detail. We are glad to see that Mr. H. Heathcote Statham takes up the point in a letter to the same journal, and, while admitting the necessity of the engineer, points out very clearly the several matters which make the architect's collaboration necessary. "The point is," he writes, "that engineers do not understand architectural details and mouldings, and the question of scale in connection with them"; and these have "a most important effect on the architectural expression of a structure." Of course they have an all-important effect; and it is just because, in this country, we ignore this truth that so many of our bridges, fine enough as they may be *qua* engineering structures, are worthless as artistic unities. They manage better in France, where the engineers understand that what they don't understand is better left to the architects.

With us, the engineer does not so readily recognise his limitations. He goes ahead with the confidence of the expert mathematician, who believes that every problem under the sun can be solved by mathematics. He rarely understands that to construct is one thing, and to create, another; and that both construction and creation are necessary if the work is to be really fine. There have been great engineers, like Rennie, who have had the instincts of architects, just as there have been great architects, like Wren, who have had the abilities of engineers. But the temperaments of the two classes differ widely, and the highly specialised training of the engineer tends to emphasise the difference. A reform in our educational methods might do something to break down the barrier between the two and effect a *rapprochement* that might lead to a more sincere and mutually respectful collaboration in a single work than is possible at present. The *régime* at University College, where architectural and engineering students commingle, is an example which might be followed with beneficial results.

Mr. Mervyn Macartney's lectures on St. Paul's Cathedral, given at Sion College last week, revealed to his audience a good many interesting facts about the structure which most of those present must have heard for the first time. A large part of the present trouble is caused, it would appear, by the stone used by Wren for the piers and buttresses which carry the vast weight of the dome. It was intended to use Portland stone; but owing to the difficulty of obtaining the blocks, which had to be brought by water, within a reasonable time, a softer stone from Reigate and Godstone was substituted. This inferior material has

proved inadequate to withstand the strain, and hence the cracks that have appeared in the fabric. A further difficulty is provided by the rusting of the great chains embedded in the stonework round the base of the dome. This problem is a difficult one to solve, more especially in view of the weakness of the piers on which the dome depends. Briefly, the result of Mr. Macartney's experiments and calculations is to confirm the opinion of those who asserted at the outset that the condition of the Cathedral was critical.

St. Paul's took thirty-five years to build, and Wren's reason for discarding Portland stone for an inferior material on the score of time is therefore a little difficult to understand—assuming that he was aware of its inferiority and what it might involve in the future. It is possible, however, that his desire to see the building finished and done with within his lifetime may have prompted him, at the period when the piers were being hurriedly put up, to hurry on the work at the risk of spoiling it for posterity. If so, it was the instinct of the artist, not the foresight of the engineer. Yet Wren's reputation as an engineer, if it depended on nothing else, would be firmly established by the dome itself, which is one of the world's triumphs of constructional ability, as well as a supreme work of architecture. The English Renaissance owed much to Wren, and the debt, which interest added thereto, has been handed on to the present generation. In his dual capacity of architect and engineer he is, now more than ever, our exemplar of the complete builder.

The House of Commons Channel Tunnel Committee met last week, and Lord Sydenham spoke at length upon the military dangers which opponents of the scheme alleged would arise in the event of its being constructed. Several other speakers, all in favour of the project, discussed the subject in its military and political aspects; but no one, we regret to notice, made any reference to its architectural treatment. To those who would urge that the time for discussing Channel Tunnel architecture has not yet arrived, we would remark that the same objection was probably raised when the great railway companies were projecting their underground workings; the result, at any rate, was that the time for discussing the architecture of their tunnels was allowed to arrive until after they had been built, the consequence of which most of them are eyesores to this day. An eyesore—perhaps we should say another eyesore—at Dover should be avoided, not merely on æsthetic but on humane grounds. There are a certain number of folk to whom the sight of the near end of the Channel Tunnel will always suggest the danger of invasion; and it is reasonable to suppose that the forbidding aspect, the more acute and permanent, will be its effect on their sensitive nerves. On the other



and, a pleasing architectural treatment may very well express the purpose of the tunnel without conjuring up any unpleasant possibilities that may be remotely connected with it.

The notorious impermanence of statuary sites is further illustrated in the proposal to alter the position of the Crimean War memorial in Waterloo Place, London, and to put in front of it the Sidney Herbert statue from the War Office quadrangle, and the new Florence Nightingale statue by Mr. Walker. A few lamp standards and dwarf posts, all scrupulously paired, will make up a composition that will be nothing if not symmetrical: hence it is certain of the affrages of the British public, who, knowing nothing whatever about art, and rather pluming themselves on their ignorance of it, recognise symmetry on sight. There is, however, one terrible flaw in the very audacious scheme for bringing Florence Nightingale, Sidney Herbert, and the other Crimean heroes into symmetrical and harmonious association. Why should they be assembled in Waterloo Place?

Mr. Seebohm Rowntree, speaking on the housing problem at the recent Swansea Social Service Conference, gave emphasis to a view that has been often expressed in these pages. Enlightened people, he said, must get rid of the idea that the houses now being put up for the working classes were satisfactory; they were falling infinitely behind what prudent housing reformers considered was necessary. It is no doubt the case that minimum requirements are too commonly accepted as a model, and that cut-and-dried schemes issued by the Local Government Board, or by other official or unofficial advisers, rather tend to function mean accommodation and meaner architecture—in short, to stereotype poor practice. A lift out of this rut is sometimes obtained by instituting architectural competitions; and if the Government has any serious intention of dealing with the subject on a national scale, national competitions should be organised.

It appears that the Cubists and Futurists have been succeeded by the Vorticists, who have issued a publication called "Blast." The book has a most appropriate title. According to the dictionary, a blast is "any pernicious or destructive influence, the infection of anything pestilential, a flatulent disease," and if the expression be used as a verb we are told that it signifies "to effect with some sudden violence, plague, calamity which destroys or causes to fall, as to blast pride or hopes, to confound or strike with force." The authors of this extraordinary treatise declare that it is their object "to make the rich of the community shed their education skin, to destroy politeness, standardisation, and academic—that is, civilized—vision." It is all very horrible, but we may comfort ourselves with the reflection that these eccentric æsthetic theorists have the happy knack of destroying each other. The Vorticists may flourish to-day, but presently the Post-Vorticist will arise, and woe betide them then! According to a contemporary, the people who adopt "Blast" as their watchword should be scheduled as the victims of some notifiable disease, such as measles or "a similarly mild but communicable eruption of morbid childhood." If this tolerant view be adopted we can abstain from criticism and may dismiss them in the same manner as Anatole France dismisses the symbolists, by saying that "it would be in bad taste to reproach them for being ill."

These freakish movements may have a good effect in that the general public will be influenced by them to attach less importance to what will happen in the world of painting, and will feel more inclined to satisfy such

æsthetic cravings as it possesses by turning its attention to architecture, which has so long suffered from neglect. The truth is that the photographic camera and the printing press have deprived the art of painting of many of the social functions it used to perform, and in future it is destined to occupy a quite subordinate place in the hierarchy of the arts.

It is announced that the expenditure of £100,000 upon the proposed new central offices for the Metropolitan Water Board, to be erected on a site in Rosebery Avenue, has been officially sanctioned, and that Mr. H. Austen Hall, F.R.I.B.A., has been appointed architect to carry out the work. His designs were shown in our issue of June 10. This is perhaps the most important of Mr. Hall's many competition successes. Mr. Herbert Austen Hall has had an extremely successful professional career. Born in 1881 he was articled to Mr. Philip Tree, of St. Leonards, and began practice in London in 1905. He is an Hon. Examiner of the R.I.B.A., and a Vice-President of the Architectural Association. His works, in partnership with Mr. Septimus Warwick (several of them obtained in competition) include Lambeth Municipal Buildings; Holborn Town Hall; Berkshire County Offices, Reading; St. George's House, Perth, Western Australia; Sylvester House, Hackney; and a good deal of domestic work.

A very welcome message of hope is conveyed in the short survey of the present position of the building trade in London, which appears in later pages of the present issue. It is shown conclusively that, so far from the London trade being in the languishing condition which has been inferred from the duration of the London dispute, there is, indeed, a very substantial amount of building still in active progress. Add to this the work that has been brought to a standstill by the labour trouble, or is making somewhat slow headway under restricted conditions; take into the account also the many projects of magnitude that are on the point of materialising, and we are confronted with a volume of business for which it would be difficult to find a parallel in the annals of the London trade. When work is fully resumed, as surely it must be within a very few days, the boom will be little short of stupendous. Given fine summer weather protracted well into the autumn, there should be but little difficulty in finding employment for nearly all the locked-out men, without displacing those who have remained at work. Such an era of unbroken peace and abundant prosperity as may be reasonably anticipated through a natural revulsion from prolonged dispute and idleness will in great measure atone for the lean months that have been such a sore affliction not only to the disputants but to the non-combatant traders and specialists for whose materials and services the demand will be not merely resumed but redoubled. Indeed, it is not impossible that the rebound will ultimately take them further along the path of prosperity than they would have gone but for the temporary hold-back.

The case of Speir and Beavan v. Portland U.D.C. reported last week, indicates a peculiar weakness of public authorities for disclaiming responsibility, and a commendable show of professional spirit by the architects. Plaintiffs, having won a competition for proposed new council offices, were asked to make certain alterations in their winning designs. A Local Government Board inspector reported against the scheme. He did not like the site, and he was troubled by the existing financial burdens of the council. The project was therefore abandoned. Thereupon the council calmly refused to pay the architects for the extra work they did in altering the designs. The council's endeavour to ride off on the plea that liability



was contingent on Local Government Board sanction did not meet with the approval of Mr. Justice Shearman, who awarded the architects £35 odd for the extra work which had been required of them. Although it seems to be mere common-sense that architects should not be asked to work for nothing, the learned judge confessed to "great difficulty" in arriving at his decision!

### HERE AND THERE.

OFFHAND one might have said that every nation had its own distinctive art and architecture. Archæologists have uncovered for us the vestiges of antiquity. We have a fair idea of the Palace of Susa, where the Kings of Persia spent three months in the Spring, and of the Palace of Ecbatana, where they went for two months during the heat of summer; and, similarly, we know a good deal about Nineveh and Khorsabad and Persepolis; while the temples of Egypt and their hieroglyphics have given us a very complete insight into the life of a people whose record goes back ten thousand years. Even of the Aztecs we are not devoid of knowledge, fragments still remaining to testify to their mighty art of building. All have had their own particular style, even a comparatively insignificant people like the Hittites, who played an important part in the development of Persian art. How strange, therefore, that the Jews should have been without any distinctive art or architecture, and that no substantial remnant of any of their buildings should have come down to us. There is perhaps only one other people of whom it might be said that they had no art of their own, namely, the Arabs. Fergusson says of them—"The Arabs themselves had no architecture properly so-called. Their only temple was the Kaabah at Mecca—a small, square tower almost destitute of architectural ornament, and more famous for its antiquity and sanctity than for any artistic merits. (Here, of course, it is necessary to distinguish between the Arabs and the Moors, who had a magnificent art.) It is said that Mahomet built a mosque at Medina—a simple edifice of bricks and palm sticks. But the Koran gives no directions on the subject, and so simple were the primitive habits of the nomad Arabs that had the religion been confined to its native land it is probable that no mosque worthy of the name would ever have been erected."

This association of the Arabs and the Jews is suggestive, because the nomadic life of both was the cause of their failure to develop an individual art. A distinctive style could not possibly develop when the people lived a pastoral life and dwelt in tents; there was no community of ideas, nor the occasion for buildings expressing them. But when the Jewish nation—possibly numbering two millions—went into Canaan and became dwellers in towns, one would have expected a definite Hebrew art to arise. The fact, however, appears to be otherwise. It is true that the Mosaic law, with its injunction against pictures and images, was a deterrent factor, but similar restrictive laws under Mohammedanism did not prevent the development of Eastern art.

The Jews went into Palestine probably two thousand years before the birth of Christ, the highest expression of the nation being reached about 1,000 B.C., in the reigns of David and Solomon. Yet during all this time no characteristic Hebrew art was developed. The City of David had little splendour; the King lived in a wooden palace, the work of foreign craftsmen, and the Ark still dwelt in curtains; and though the two great buildings that Solomon erected at Jerusalem (the House of Jehovah and the House of the King) come at once to mind, it seems very doubtful whether even

these were decorated in any style peculiar to the Hebrews. The Jews, it would seem, relied entirely upon the Phœnicians for their craftsmen, and the Phœnicians, who were a busy people with a ruling passion for trade, brought in all the external influences which their far-travelling kept them in touch with. Here I may cite two authorities. Mr. Frank Miles Day, the well-known American architect, writing in Russell Sturgis's "Dictionary of Architecture and Building," says: "The Temple of Solomon was largely of Phœnician workmanship. Its actual remains are most scanty, consisting of certain foundations, the megalithic aspect of which recalls similar work at Baalbec. Among the many restorations of the Temple based upon Biblical texts, great discrepancies exist. None of them bear such an air of inherent probability as to be really convincing. . . . The very detailed description of the Temple as seen by Ezekiel in a vision is partly a memory of the earlier structure and partly a fabric of the imagination." A writer in the "Encyclopædia Britannica" says: "On the conquest of Canaan the Israelites seem to have taken possession of the dwellings of the vanquished people; and we have no record of any important building constructed by the Jews till the days of Solomon. And at so low an ebb was the art of building at that time that the Jews did not even know how to hew timber properly. Solomon therefore applied to Hiram, King of Tyre, and that monarch sent an architect and a staff of workmen. The early Temple is described as a building of stone, about 110 ft. long, 36 ft. wide, and 55 ft. high, roofed, lined, and floored with cedar, the wood being carved with 'knops' and open flowers, while at the entrance were two bronze columns having capitals decorated with lily work, chain work, and pomegranates. Canina conceives the style of the building to have been Egyptian."

One of the difficulties of the matter is the devastating effect of succeeding peoples who have overrun Palestine, pulled down the ancient fabrics, and set up their own in place of them. Jerusalem was burned in 168 B.C. and the Temple reconstructed twice afterwards, first by Zerubbabel and secondly by Herod, and in this manner the original work has been entirely obliterated. Writing of Palestine as it was in the time of Christ, Renan says: "Nazareth, like all the small Jewish towns of that period, was a group of huts shabbily built, and must have presented that forbidding and poverty-stricken aspect which is still characteristic of villages in the East. The houses it would seem did not differ much from those cubes of stone, elegant neither without nor within, which at the present day cover the richest portions of Lebanon." And the annihilation of whatever Jewish art there might have been is well indicated by the same author, when, writing of Galilee and its environs, he speaks of Tiberias, Julias, Diocæsarea and Cæsarea, stately works of the Herods, who sought by erecting these magnificent buildings to prove their admiration of Roman civilisation and their devotion towards the members of the family of Augustus; as also his reference to Sebaste (Samaria), built by Herod the Great, "a showy city, the ruins of which lead one to believe that it had been brought to this site ready-made, like a machine which has only to be put together and set up—an ostentatious piece of architecture which arrived in Judea by shiploads, with hundreds of columns all of uniform diameter."

From all of which it seems that though Palestine has buried in its soil the remnants of great buildings erected by the Romans, it possesses nothing of the buildings of the Hebrew race; and there appears to be nothing to controvert the conclusion that the Jews had neither an art nor an architecture of their own.

UBIQUE.



## THE BOOM IN THE LONDON BUILDING TRADE.

[Specially Contributed.]

THE long-expected boom in the London building trade has come at last. It has frequently been predicted during the past four or five years; but the continued depression had begun to dishearten even the most optimistic. At last, however, in spite of a good deal of pessimism, and in face even of a protracted dispute between masters and men, the tide of prosperity has turned, and evidence is everywhere to be seen of a great building-trade revival. The change has come suddenly; so suddenly, indeed, that it is not yet generally realised. Big buildings are everywhere in course of erection. It is almost impossible, in fact, to walk for a few hundred yards down any of the main thoroughfares without catching sight of important building operations. Giant derricks surmounted by wide-swinging cranes project high above the roof lines in all directions, and give a significant indication of the very welcome turn that has been taken.

Work is of course suspended on a number of jobs in consequence of the dispute, but the percentage of such buildings is comparatively small. When that trouble is finally settled (and it is difficult to see how it can possibly last much longer), London should be enjoying one of the biggest building booms of modern times. A casual survey of what may be called inner London will give a fairly comprehensive idea of the rapid development of the revival.

Beginning in the Strand at Charing Cross, a big restaurant, to be called the "Strand Corner House," is to be erected for Messrs. Joseph Lyons. The site is already cleared, and operations may be expected to be begun almost immediately. At the bottom of Villiers Street, near by, the rebuilding of Charing Cross District Railway Station is rapidly proceeding. Farther along the Strand, the old Tivoli is being razed to the ground, and a new music-hall is to be erected at once. A little farther along, on the corner of Savoy

Street, a block of premises is being converted to the use of the Agent-General of Western Australia by Messrs. W. E. Blake, Ltd.

Opposite the Gaiety Theatre, and between Somerset House and the entrance to King's College, a block of old houses is being pulled down, and rebuilding will be started shortly. On the corner of the Aldwych site towards Fleet Street stands the gaunt steel framework of the building which is being put up for the Commonwealth of Australia, from the designs of Messrs. Marshall Mackenzie and Son. We give an illustration of this huge mass of steelwork, which is quite typical of the condition of many other big structures now being erected. Messrs. Redpath, Brown, and Co. are the steelwork contractors, and Messrs. Dove Bros. the builders. This building is one of those which are badly affected by the strike, work having ceased altogether. At present the stonework is built up to about the level of the first floor.

Farther east, at the back of the Law Courts, the site of the old King's College Hospital has been cleared, and Messrs. Killby and Gayford, Ltd., have reared two large derricks preparatory to beginning the erection of a vast building for Messrs. W. H. Smith and Son. Messrs. H. O. Ellis and Clarke are the architects, who, it will be remembered, were selected to take part in the recent competition for the new offices of the Metropolitan Water Board.

In Fleet Street there are several vacant sites which are far too valuable to lie idle very long. Towards the Ludgate Circus end, on a big site, building operations are already in hand by Arthur Vigor, Ltd. Considerable alterations are being made to Ludgate Hill Station by Messrs. Killby and Gayford, Ltd., and at the corner of New Bridge Street a large building called "Blackfriars House," is being erected by Messrs. F. G. Minter for Messrs. Spicer Bros., the paper manufacturers.



AUSTRALIA HOUSE, STRAND, LONDON. A. MARSHALL MACKENZIE AND SON, F.R.I.B.A., ARCHITECTS.



In the heart of the City many notable alterations are taking place. Finsbury Circus has already been more than half rebuilt with huge modern offices, and the remaining portion of the early-nineteenth-century work is marked down for demolition. This will mean a great amount of rebuilding. In passing, it may be devoutly hoped that the housebreaker will spare Brooks's London Institution, one of the most delightful buildings of the "Classic Revival" period.

In Moorgate Street a site is being cleared for the new "Moorgate Hall" (a building about the size of Electra House), which is to be erected from the designs of Messrs. Richardson and Gill. A perspective view of the building, it will be remembered, was recently published in this Journal. Messrs. J. Chessum and Sons are the builders.

On the southern side of the City great building developments are both projected and in hand. A large section of the west side of King William Street has been demolished, and a big derrick has been set up for the erection of new offices for the Phoenix Assurance Co., Ltd. The architect is Mr. H. L. Anderson, and the builders are Messrs. George Trollope and Sons and Colls and Sons, Ltd. Another big section of the same street—from Abchurch Lane to Nicholas Lane—some 180 ft. in length, is shortly to be pulled down and rebuilt. On the opposite side, too, extensive operations are being carried on by Messrs. W. H. Lorden and Son, Ltd.

On the north side of London Bridge a huge building is being finished by Messrs. Spiers and Son, Ltd., and at the lower end of Gracechurch Street a block of early-nineteenth-century buildings, with a frontage of 168 ft., has been acquired for rebuilding purposes by Messrs. Howell J. Williams, Ltd.

In Lombard Street extensions to the premises of Barclay and Co. are being built by Messrs. Ashby and Horner, while in Leadenhall Street a large building for the London and Lancashire Fire Insurance Co., Ltd., is in course of erection by Messrs. Trollope and Sons and Colls and Sons, Ltd., from the designs of Mr. M. E. Collins, F.R.I.B.A. Still further east, near the Tower, is the site for the new offices of the Port of London Authority, which will shortly be erected from the designs of Mr. T. Edwin Cooper.

Going west again, a number of vacant sites are encountered which cannot long be allowed to remain unoccupied. These include that of Smirke's old General Post Office at St. Martin's-le-Grand, where there is a fine opportunity for adding to the architectural embellishment of London. Facing the new Sessions House in the Old Bailey, extensions to Holborn Viaduct Station for the S.E. and C. Railway are being carried out by Messrs. Ford and Walton, Ltd.

In Kingsway a large number of important buildings are being erected, including "Imperial Buildings" (Messrs. T. H. Kingerlee and Sons, builders), "Queen's House" (Mr. C. Gray, builder), new offices for the Public Trustee (Messrs. Galbraith Bros., Ltd., builders), and, at the southern end, "Empire House" and "India House," for which Messrs. Trehearne and Norman are the architects and Messrs. Wm. Taylor and Co. the builders.

Other buildings which will be started in Kingsway shortly include premises for the General Electric Co., Ltd. (Mr. George S. Vickery, architect), and "Tower House" (Mr. Delissa Joseph, architect).

In Westminster many large buildings are in course of construction. In Tothill Street a big block of offices is being erected next to Caxton House by Messrs. W. H. Lorden, Ltd., while at the back of that building another block of offices is in course of erection by Messrs. Ford and Walton, Ltd., from the designs of Messrs. Lanchester and Rickards. Great developments are also taking place on Millbank since the widening and improvement of that thoroughfare. Many important new buildings have already been erected, and others now being built include offices by

Messrs. W. Cubitt and Co., and Messrs. Holliday and Greenwood, Ltd. Smith Square, which is in the immediate neighbourhood, has been almost totally demolished and partly rebuilt, but a large area still remains vacant for building purposes.

Lambeth Suspension Bridge has been condemned as unsafe for vehicular traffic, and before long it must be replaced by a much larger bridge, which will probably necessitate the construction of a new main road from Victoria Station through an intervening area of slum property. Here, again, a fine opportunity will be presented for building operations.

In Great George Street the new Government Offices are being completed by Messrs. Holloway Bros., though the work is temporarily arrested as a result of the dispute. The same remark applies to the London County Hall, on the south side of Westminster Bridge; though as undue rapidity has never been a characteristic in the construction of this building a few weeks of enforced idleness cannot make any very considerable difference. The rebuilding of Waterloo Station is proceeding as rapidly as can be expected, and Messrs. Perry and Co. are to be congratulated on the successful way in which they are dealing with this very difficult undertaking.

Returning to the north side of the river, we find many great projects in course of execution in the West End. In Cockspur Street new premises for the Pacific Mail Steamship Co. are being built by Messrs. Rice and Son; while in Lower Regent Street, on the site of the old Hotel Continental, offices for the Agent-General of British Columbia will shortly be begun by Messrs. Holland and Hannen, from the designs of Mr. Alfred Burr, F.R.I.B.A. On the opposite side of the road a new storey is being added to the Junior United Service Club, from the designs of Sir Aston Webb. Messrs. Trollope and Sons and Colls and Sons, Ltd., are the builders.

In Glasshouse Street, which lies immediately behind the Quadrant, the Regent Palace Hotel is in course of erection by Messrs. John Mowlem and Co., Ltd., for Sir Joseph Lyons. The building covers an enormous area of ground, and the steelwork contract, in the hands of Messrs. Dorman, Long, and Co., Ltd., must be one of the largest of modern times. In Golden Square, the centre of the Soho District, Messrs. Ashby and Horner are building large new premises for Messrs. Gagnière, from the designs of Mr. Leonard Stokes; while in Regent Street itself Messrs. Prestige and Co. are completing a big block of buildings for Messrs. Robinson and Cleaver.

Regent Street, indeed, is undergoing great changes. Before long, if the present rate of demolition continues, little will remain of the delightful work of Nash and his confrères of the stucco period. The latest section to be condemned is that occupied by Messrs. Dickins and Jones, who, with Harrods, Ltd., propose shortly to erect a huge emporium on the site.

Mr. J. Carmichael is building a block of shops and flats in Wigmore Street; and, further north, in Marylebone Road, the new Marylebone Town Hall is in course of erection, from the designs of Mr. T. Edwin Cooper. Work here is also suspended as a result of the dispute in the trade.

In the Park Lane district large numbers of private houses are shortly to be erected. Among the builders at work are Messrs. Prestige and Co., Holliday and Greenwood, Foxley and Co., and G. and E. Kent.

Yet another large hotel is being built in the West End. This is the Park Lane Hotel, occupying a big site in Piccadilly, opposite the Green Park. Messrs. Stevens and Munt are the architects, and Messrs. Holliday and Greenwood the builders.

In addition to the buildings mentioned in the foregoing rapid survey of central London a multitude of smaller jobs are in progress. When it is remembered that other works either contemplated or in hand include St. Paul's



Bridge, Southwark Bridge, the new Metropolitan Water Board Offices in Rosebery Avenue (Mr. H. Austen Hall, architect), and new offices for the Board of Trade in Whitehall (the competition for which will shortly be decided), and a large number of other works of considerable magnitude both in and around London, there can be no possible doubt about the great boom which is now upon us.

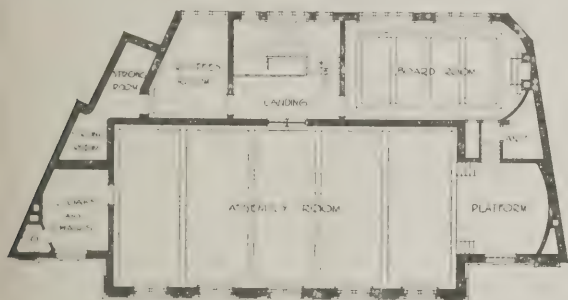
## THE PLATES.

### *New Offices for the Burslem Mutual Burial Society.*

These offices, illustrated as Plate LXXI. of the "Current Architecture" series, have recently been erected at Burslem to meet the requirements of the extended insurance business undertaken by this society. The plans are self-explanatory, the chief factor having been that of convenient access to the various officials' departments. The exterior is faced with Titford wire-cut brindled bricks, with Alderly stone dressings. The roof is of Westmorland slates. The interior joinery is of whitewood. The buildings are fireproof throughout on the Siegart principle. The architect is Mr. Reginald T. Longden, Stoke-on-Trent and Leek, and the general contractors were Messrs. Grants, Burslem. The quiet dignity of the design is emphasised rather than opposed by the legitimate devices for avoiding monotony of form and materials. It would not be surprising to hear that the architect is an admirer of Wren.

### *Chester Housing Competition.*

The plans, elevations and sections shown as example XXII. of the "Current Architecture" series relate



*First Floor Plan*



*Ground Floor Plan*

NEW OFFICES FOR THE BURSLEM MUTUAL BURIAL SOCIETY. REGINALD T. LONGDEN, ARCHITECT.

to the competition of which a critique by Mr. Lionel Budden appears on p. 26. They are by Messrs. James and H. A. Dod, who were awarded the first premium.

### *Royal Library, Munich.*

No. XXV. of the "Monumental Architecture" series shows Von Klenze (who, indeed, never over-elaborated in his general design) in his least exuberant mood, and the building, almost commonplace except for its arcuated colonnade, which, however, produces a rather stilted effect, is not one of his happiest efforts. Mr. Trystan Edwards's articles on Von Klenze are resumed on p. 29.

### *Doors, Guildford and Richmond, Surrey.*

The design of the door from a house in the Dorking Road, Guildford ("Small Houses of the Late Georgian Period," XVI.) is similar in motif to the Richmond door, mentioned below, but is probably a few years later in date, and is treated in a more formal way. The detail of the plaster work is interesting.

The door of the Old Court House, Richmond, Surrey, is in the late Adam manner, and is somewhat suggestive of the Colonial design in America of the same period. The character is graceful and fanciful as compared with the Urban formality such as is found, for example, in the doors in Bedford Square and its immediate neighbourhood. The fanlight is racy of its period.

### *Student's Drawing. Detail from the Basilica Æmilia.*

Although feeble attempts to lay bare the Forum Romanum were made as early as the sixteenth century, it was not until 1870 that the work of uncovering the buried buildings was begun systematically; and later spadework, carried on since 1898 by Commendatore G. Boni, has doubled the excavated area. The Basilica Æmilia, from which M. Ernest Hébrard takes the detail shown in Plate XXII. of the "Students' Drawings" series, was built B.C. 179 by M. Æmilius Lepidus and M. Fulvius Nobilior. It originally occupied the whole north side of the Forum, to which it presented a two-storey colonnade with Doric entablature. M. Hébrard's drawing happens to illustrate the latitude which the Romans allowed themselves in the Doric Order. They tended, on the one hand, towards Tuscan plainness, and on the other towards the decorative elaboration of capital and entablature shown in the example from the Æmilian Basilica.

### *Practical Chart of Town Planning Procedure.*

The section of the Practical Chart of Town Planning Procedure for schemes prepared by owners deals with Stage 5, and shows the successive steps to be taken in applying to the Local Government Board for approval of a scheme adopted by a local authority.

### *Working Drawing: Cornice Treatment.*

As the marked improvement recently observable in the working drawings produced in this country is largely due to American influence, occasional reproduction of American examples is manifestly of service to the movement. There is, of course, a very natural tendency to specialise on this class of draughtsmanship; and it will be noticed that the measured details of cornice treatment, etc., which form the subject of Plate No. XXII. of the "Students' Drawings" series have been drawn by Mr. Walter McQuade; the architects of the building to which it relates—the Lord and Taylor Department Store, New York—being Messrs. Goldwin, Starrett, and Van Vleck, and Messrs. Hazzard, Erskine, and Blagden. The drawing may be regarded as a fair average specimen of current American practice, the draughtsmanship being neat and firm, and without undue elaboration of the decorative features, while the dimensions are set out *currente calamo* but clearly.



## CHESTER CORPORATION HOUSING COMPETITION.

SPECIAL CRITIQUE BY LIONEL B. BUDDEN, M.A., A.R.I.B.A.

THE City Corporation of Chester invited designs for workmen's dwellings on their estate at Hough Green, for which a general development plan was prepared. Mr. Patrick Abercrombie, M.A., was appointed assessor. Premiums: Designs placed first, second, and third received premiums of £50, £25, and £10 respectively, the first premium to merge into the commission on buildings erected; the three premiated designs becoming the corporation's property. Requirements: The accompanying plan shows the site plan approved by the corporation. It was intended to adhere to the positions of the houses and the divisions into groups as shown, but not to the exact outline of each block, which would vary according to the competitor's detailed arrangement of house planning. Competitors were required to send in designs for one block of each of the three types marked X, Y, and Z. The designs were to be based on a study of the plans issued by the L.G.B. in their memorandum on March 25, 1913, with respect to houses for the working classes. Full freedom was given in the selection of materials and type of elevation. Each house was to be provided with a scullery, bath, and w.c., and except type Z, no house was to contain less than three bedrooms. Type X: Group of four houses, each containing five rooms, *i.e.*, parlour, living-room kitchen, and three bedrooms, to cost not more than £240 each. Type Y: Group of three houses, each containing four rooms, *i.e.*, living-room kitchen and three bedrooms, to cost not more than £180 each. Type Z: Group of eight tenements, built in two storeys, in pairs; each tenement to contain two rooms, *i.e.*, living-room kitchen and bedroom; each pair of tenements to cost not more than £195. In order that all competitors might be on the same footing with regard to content and cost, it was decided to place the price per cubic foot of contents at 6d. The drawings required were:

(1.) Complete plans, elevations, and two sections of the three types of blocks of houses, to the scale of 8 ft. to 1 in. (ii.) Block plan of each block showing its position on the plot and its drainage plan. It might be assumed that the sewer would pass down the middle of the road in front of each block. No report was to be submitted, but full notes as to materials and character of design were to be put on the drawings; and plans and sections were to be fully figured. The assessor's awards are as follow: 1, Messrs. James and H. A. Dod, Exchange Buildings, Liverpool; 2, Mr. John S. Hardie, Egremont, Cheshire; 3, Messrs. Ireland and Hanscomb, Ealing, London. Below is a criticism by Mr. L. B. Budden, M.A., A.R.I.B.A.

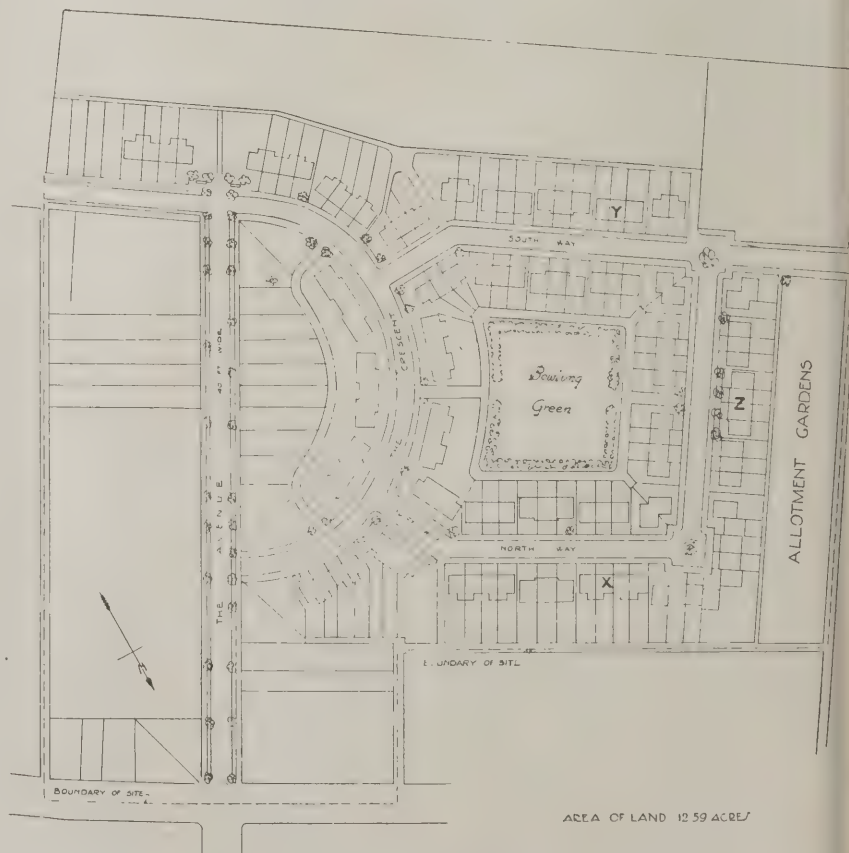
At last we are to have a garden suburb that should neither produce *ennui* nor provoke ridicule. Its roads will be reasonably disposed and its architecture will be good and consistent. For this we have, in the first instance, to thank the Chester Corporation, who sought the advice of Mr. Patrick Abercrombie in the laying out of their estate at Hough Green, and appointed him assessor in the housing competition subsequently instituted by them. In both capacities Mr. Abercrombie has done his work with admirable judgment, and the

results of his labours should go some way towards rehabilitating the reputation of the garden suburb.

To persons of education and taste that reputation has, it must be confessed, seemed to decline lower and lower. The very term "Garden Suburb" has become by-word for triviality and affectation in cottage design. It conjures to the mind a nightmare of cardboard building, visions of irritating little pink-and-white structures, blossoming at the top into a profusion of gables, dormers, and chimney-stacks, and spotted over with windows whose shapes are as capricious as the positions—caricatures of architecture, scattered confusedly about irregular spaces and along roads purposeless sinuosity.

That a perpetuation of these follies has been completely avoided at Chester is as fortunate as it is remarkable. Instead of one type of house being selected from the designs of one competitor, a second from another, and a third from another, all three types chosen for erection are by the same hand. There will be variety without discord. The homogeneity of the suburb is thus assured. It will have a real character, be an architectural whole, and not a distressing jumble of conflicting work.

The selected designs are by Messrs. James and H. A. Dod, of Exchange Buildings, Liverpool. With this qualification it may be said that they are superior in every respect to the work of any other competitor, both as regards plan and elevation. They have the initial advantage of being presented in the best form of drawings, only one other competitor, Mr. Noel S. Stephen, of Chester, submitting a series at all comparable in draughtsmanship, rendering, and arrangement. Regarded in their entirety, the chief excellence of the winning set consists in the way in which compactness is allied with flexibility. There are no excrescent outhouses



CHESTER HOUSING COMPETITION: SITE PLAN.



increase the cost and spoil composition; and the main contours of the plans do not contain projections excessive in number or degree. In consequence, Messrs. Dod have found that their parlour house (Type X) could be built for £218, although the conditions permitted an expenditure of £240, cubing at the fixed rate of 6d. (It may be remarked, in parenthesis, that whilst the allowance for this, the least difficult of the houses to design, erred on the side of generosity, that for the other two groups appears to have been a little inadequate, and it would therefore only be logical if the amount saved on the former were transferred to the latter and divided between them.) Throughout the successful schemes the units of the plans are so simple and easily related that their number can be varied according to conditions of site without causing difficulties in the design of the elevations.

For example, in the case of Type Y, should the site be extended for these northern-facing blocks and four houses be required in some positions, the central, south-lighted unit could be doubled; or if five houses were considered necessary it could be repeated at each end of the present triple arrangement. In neither case would the elevational grouping of the units be spoiled. Again Messrs. J. and H. A. Dod's handling of Type X has resulted in the back elevations composing satisfactorily, a valuable circumstance when it is borne in mind that a number of these dwellings will present that side to the bowling green. Incidentally, the one obvious defect in planning occurs in this solution of Type X, the galleries of the two central houses being lighted each from an open porch.

A survey of all the drawings exhibited showed that it was the Z group which lent itself most readily to variety of treatment. Many of the competitors were misled by the word tenement, and provided dwellings of the kind favoured by city engineers. Happily the

authors of the selected scheme have indulged a slightly more expansive vein, and given to the exterior of their flats a domestic and gracious appearance. Each is provided with a separate staircase and front door, but a back staircase has been omitted as unnecessary.

Sheer ingenuity of planning must have secured the second premium for Mr. John S. Hardie (Egremont, Cheshire). In his solutions of the problems presented by each group, complications have arisen—such as that in the roof-plan of the X type, where an internal gutter is stopped by a chimney-stack. Too many and too large breaks have been employed, and so extra expense in roofing and walling has been incurred. Y is solved by making the houses narrow and deeply recessing the centre one, a method not to be commended from the standpoint either of æsthetics or of economy.

Yet these defects are largely compensated by a clever manipulation of the area within the broken contours. The most adroit arrangement is undoubtedly that adopted for Z, in which there is provided a common back staircase in such a manner that it can, by the introduction of a partition, be converted into the front staircase of one house only.

The elevations to all three types seem a little uncertain in style, and give the impression of having caused some embarrassment. They include pointed windows of the "Strawberry Hill" kind, circular ones, with swags reminiscent of the Louis Seize period, and Georgian sash-bars. One back door is distinguished by a trefoiled Gothic head.

Messrs. Ireland and Hanscomb (Ealing, London), the winners of the third premium, have devised sensible plans for X and Z, the Z group only suffering from a common recessed porch. The difficulties of Y have been met by simply reversing the houses, letting the back premises face the road and so obtaining a south light for the living-rooms. Dutch gables, their outer



CHESTER HOUSING COMPETITION: FIRST-PREMIATED DESIGN FOR HOUSES COSTING £218 EACH.

JAMES AND H. A. DOD, ARCHITECTS.



angles resting on single posts, and casement windows of horizontal proportion, sufficiently indicate the nature of the elevations.

Of the remaining designs none calls for special mention, with the exception of the work of Mr. Noel S. Stephen, to which allusion has already been made. If one may venture to disagree with an assessor, one would suggest that Mr. Stephen's work deserved the recognition of a premium. Its faults are evident. The planning is defective in parts—especially in the case of living-rooms facing north and further handicapped by a veranda—the tenement group is conceived on wrong lines, and the cost of the buildings is not given as required by the conditions. Nevertheless, the elevations run those of the winning design a very close second. They are broad, well modelled, and particularly happy in the disposition of the windows and the detailing of the porches, etc. It is a reasonable theory that the first premium of a competition should be awarded for the highest degree of all-round excellence, since it generally follows that the successful design will be carried into execution; but the second or third awards might rather be made in acknowledgment of some special quality.

Reviewing the competition as a whole, the average level of ability exhibited in planning appeared to have been greater than that available for the treatment of the elevations—and this in spite of the fact that a number of competitors had too literally obeyed the injunction contained in the conditions, "to base their

designs on a study of the plans issued by the Local Government Board in their Memorandum of March 29, 1913," and had simply lifted entire schemes of accommodation therefrom, quite inappropriate to the circumstances of the Chester estate and unrelated to the elevations with which they were provided.

One saw here and there a set of drawings modelled and pleasant in execution and design, but they were rare. It was patent that French and American methods of draughtsmanship and rendering were very little known to the majority of the competitors, if they were known at all. Certain of the sheets on view surpassed all description in the crude incompetence of their pen-work and colouring, though the appearance of the designs was itself so unappetising that it could ill afford to be further prejudiced in presentation.

Every kind of garden suburb architecture was represented, from half-timbered adaptations of the Cheshire tradition to the "model-dwellings" indigenous to the Liverpool district.

The old moral, which the bulk of the work evoked by the competition serves to emphasise, is that only by a training on large and imaginative *projets* is it possible for an architect to learn to infuse distinction into small things. Judging from their production more than three-quarters of the competitors could never have concerned themselves with anything more considerable or stimulating than a Board School.

It is not by such experience that the humblest subjects can be invested with beauty.



Sketch Plans of Third-Premiated Designs. Ireland and Hanscomb, Architects.



Sketch Plans of Second-Premiated Designs. John S. Hardie, Architect.



## MODERN ARCHITECTS:—IV. LEO VON KLENZE.

SPECIALLY CONTRIBUTED BY A. TRYSTAN EDWARDS, M.A.

*(Continued from p. 444.)*

A WALHALLA is not a type of structure for which at any time there has been a great demand, although on glancing at the "imaginative" designs produced by students nowadays one would suppose that a Walhalla was a necessary architectural element expressive of the needs of a modern society. It is one of the distinctions of Von Klenze that he was actually required to erect such a building. As every work of art presents a dual aspect, being both form and content, the criticism to which it is exposed is also twofold. In the case of a picture, for instance, the subject may be stupid and undignified, while the composition is above reproach, the colouring and draughtsmanship superb; a poem, if regarded merely as a piece of clever versification, may be commendable, although its theme is vulgar and inane. One of the great differences between architects and poets, sculptors or painters, is that while the latter are allowed to choose both their subjects and their method of treating them, the former are nearly always compelled to give æsthetic shape to conceptions that are not the products of their own minds. Hence, in every judgment concerning a work of architecture it is especially necessary to separate the blemishes which are part of its subject from the blemishes which are part of its form. It is for the latter alone that the architect is generally responsible.

It is of interest to set forth the train of argument by which the King of Bavaria was influenced when he called upon Von Klenze to prepare a scheme for a Walhalla. Obviously the King wished his artistic activities to be vested with a national character. He had already bidden his architect to produce structures of almost every known style, Italian palaces, Gothic churches, and public buildings in the Greek manner, but still he was unsatisfied, for his name was so far associated with no work of architecture that could be described as specifically Teutonic. His patriotic task was rendered all the more difficult because of the total absence of any definite architectural tradition in his country, owing to the fact that the new movements emanating from the South always reached Germany rather late, just at the period of their decadence. Having failed to foster a style which was German, the King was of opinion that he might at least add lustre to his nation by providing it with a building whose use and purpose were suggested by a study of the ancient history of his race. According to Scandinavian mythology, the "Walhalla," or Hall of the Slain, was the place of residence of the heroes fallen in battle. The Walhalla of King Ludwig I. was intended to be a temple of fame for all Germany, and was erected on an eminence 250 ft. above the Danube, near Ratisbon. By means of statues, busts, reliefs, and tablets the mythology and history of Germany are illustrated and her greatest names commemorated.

The intention of this building is laudable, but it may be questioned whether its existence is really justifiable. There are certain kinds of architectural monument which belong to the pre-literary period, and a Walhalla is one of them.

Commemorative columns, statues, and fountains are desirable adjuncts by which the beauty of a city can be enhanced. The most important purpose that they fulfil is decorative, and they need little excuse for their existence. Their educative value is very slight, and for a highly cultured population it would be absolutely nil; for the great men of the past are more adequately described in books. But the Walhalla is not a mere decorative feature: it is a large building standing by

itself, and as a separate work of art it can only be justified if its subject as well as its form will stand the test of criticism. This temple, however, is utterly useless, and performs no social function of any kind, and the poor heroes whose busts are placed on little brackets attached to the walls look supremely undignified.

As an architectural composition it is of great interest. Outwardly it closely resembles the Parthenon, but unfortunately its setting is not satisfactory. The one perfect site in the immediate neighbourhood was already occupied by a mediæval castle, which is placed upon a piece of high rocky ground commanding a magnificent view of the river. In order to make his own building more prominent still Von Klenze felt compelled to raise it upon a series of stone platforms united by flights of steps. The result is, the building is dwarfed by its two massive and extensive foundations which, in spite of their vast scale, suggest neither solidity nor repose, for they appear to be slipping down the grassy knoll where they are set. The interior (illustrated by an engraving published as a plate in the last issue of this Journal) is highly ornamented. The wall is interrupted by solid projections having pilasters at the corners. The order is of a peculiar nature, for the frieze is inordinately wide in comparison with the other members of the entablature. The part of it that belongs to the projections is decorated with small panels, while the rest is fully occupied with sculptured figures in low relief, but the contrast is far from pleasing, for it deprives the order of homogeneity. Above the pilasters are very graceful caryatids supporting a second entablature, of which the frieze is embellished with occasional wreaths. In the ceiling Von Klenze has attempted what is æsthetically impossible. He has introduced skylights in the centre of a roof consisting of two sloping planes. The windows are consequently bent in the middle, and the conflicting lines are not made tolerable by the interposition of triangles filling up the apices, as in the case of the roof itself; in pediments and trusses of the simpler kind there are geometrical artistic wholes which distract one's attention away from the crudity of the main configuration of the roof; but here we have not even a tie-beam to join the extremities together. The first impression given by these skylights is that they were altogether forgotten in the original design, and that the architect, finding his temple in darkness, decided to relieve the situation by boldly knocking out of his ceiling occasional groups of eighteen coffers.

The Ruhmes Halle is used for a purpose similar to that of the Walhalla. This, in conjunction with the colossal statue in front of it, forms an admirable composition, which, however, should be looked at from the front. The low colonnaded structure with projections at each end provides a splendid background for the monument. Von Klenze has avoided the mistake so painfully evident in the Buckingham Palace and Victoria Memorial group, of having two conflicting central features one behind the other. This building must be counted a masterpiece, for its effect is very bold and entirely novel, although the means employed are simple in the extreme.

It is impossible in this short space to give a criticism of all Von Klenze's designs. Perhaps it would be more profitable to attempt a brief account of certain aspects of them. With regard to architectural detail it cannot be said that he made any valuable contribution. A lack of proper scale is often exhibited. In the interior



of the Glyptothek, at the corners of the groined ceiling, there are coarse scrolls of gigantic size, while the carving of the panels is minute. As a rule, over-refinement is the most conspicuous defect of his ornament. He will decorate blank spaces with scrolls so tiny that it is a strain upon one's eyes to look at them. In fact, the scroll motif is used far too frequently. Not content with the traditional wave-ornament and the numerous adaptations of the foliated scroll suggested by Italian work, he will actually take a form such as the Greek conventionalised honeysuckle, and, maintaining the general shape of the pattern, he will substitute a scroll for every leaf. An example of this unhappy treatment occurs in his Saal des Münz at the Imperial Museum of St. Petersburg. Von Klenze's patterns, *i.e.*, those which are his own invention, have not the continuity and rationality which are the distinguishing characteristics of Greek ornament. Frets are often terminated in a ludicrous way, and instead of bending round upon themselves they suddenly blossom into little roses. We have scrolls stopping abruptly, and square or circular framed panels interjected between flowing lines; we have stiff features impinging upon bending ones and spaces filled up anyhow. Certain Greek decorative patterns, such as the egg and tongue and the upright flower ornaments, only look well when they are set horizontally: others, like the fret, the guilloche, and the scale ornament, can be arranged at all angles. Von Klenze, however, failed to take note of this distinction, or perhaps intentionally disregarded it.

In his use of the orders he showed himself to be a conservative, and, moreover, he exercised a singular restraint in their use, for the majority of his buildings were astylar and arcuated. He produced his most characteristic effects by the bold repetition of simple elements. To the Pinakothek, the Ministry for War, the Royal Palace and Residences at Munich, and to the Imperial Museum at St. Petersburg he imparts a noble scale by setting before us long rows of arches, windows, and columns.

The main architectural features were always free from the over-elaboration which occasionally marred his detail. An element of design cannot legitimately be repeated many times unless it be simple; and if this rule be violated we have a totality which is too intricate to be pleasing. Complicated Gothic window tracery merely becomes dull if it be reproduced more than a few times on the same façade; the seventeen plain Doric columns of the Parthenon look magnificent, but an equal number of the rich capitals of the Erechtheion ought not to be placed side by side. The multiplying of simple bays led to a dignified result, but a similar reiteration of highly decorated brackets and panels certainly detracts from the beauty of some of his compositions.

It is to the credit of Von Klenze that he was the first to introduce into Germany a grand, stately architecture that could be regarded as a concrete symbol of the mature civilisation to which in the nineteenth century his countrymen had attained.

[Two errors of the press that have crept into this series of articles call for correction. In the issue for June 17, p. 427, fourteenth line, first column, "precocity" should read *preciosity*. In the issue for June 24, p. 443, the first word in the seventeenth line of the second column should be *Attic*, not "Celtic." The articles on Von Klenze began in the issue for June 17, and were continued in that for June 24. The series on "Modern Architects" began in the issue for April 8, with an article on Sir John Soane, which was concluded in the issue for April 15. The other subjects in the series are—The Soane Museum, April 22; Alexander ("Greek") Thomson, May 13 and 20; and Smirke, May 27 and June 3. Further articles in the series are in preparation.]

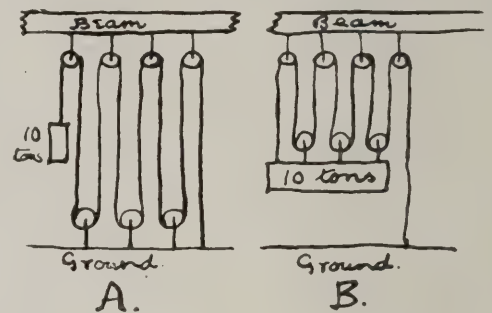
## CORRESPONDENCE.

*The Editors disclaim all responsibility for the statements made or opinion expressed by correspondents, who are asked to be brief, and to write on one side only of the paper.*

### Pulley Problem.

To the Editors of THE ARCHITECTS' AND BUILDERS' JOURNAL.

SIRS,—Professor Adams's reply to "J. W. D.," in your issue of June 24, may possibly be misunderstood by students in the absence of an explanatory diagram.



If the pulleys were arranged as in the accompanying rough sketch A the total load on beam would, of course, be eighty tons, as he says; but if the more normal arrangement shown in B were adopted the total load would be  $\frac{10}{7} \times 8 = 11\ 3\text{-}7$  tons.

A. E. C.

*Model Answers to R.I.B.A. Examination Papers.*  
To the Editors of THE ARCHITECTS' AND BUILDERS' JOURNAL.

SIRS,—Similar criticisms to those expressed by Mr. Spencer doubtless occurred to many of your readers after perusing the article in your issue of May 27. Whilst it is true, as Mr. Friskin intimates, that there is scope for personal choice and preference amidst the great variety of modern sanitary apparatus, it should be pointed out for the benefit of budding sanitarians that there is nowadays no lack of budding sanitarians (amongst those who, in Mr. Balfour's celebrated phrase, are not "children in these matters") upon certain points which cannot be justly regarded as either optional or insignificant. Perhaps I may be allowed to cite a few instances:—

(a) Anti-syphonage pipes are generally fixed outside, not inside, buildings, similarly to all other pipes intended to convey foul water or foul air.

(b) Lavatory waste pipes are not generally connected to a vertical 4 in. stack, whether there be one range only, or several ranges in tiers. (The examiner's plan could be improved by placing the lavatory range against the back wall and dispensing with the partition.)

(c) Closets are not fitted with anti-syphonage pipes merely because "more than one closet is connected to a single soil pipe." A solitary closet might under certain conditions syphon-out itself unless a vent pipe were provided, and, on the other hand, a series of closets may discharge into a common soil pipe without each trap being separately ventilated, and yet without the slightest danger of syphonage occurring.

(d) The floors of bathrooms in good class houses are not often covered with lead.

(e) No lavatory basins are now fixed in good class houses, having the antiquated separate overflow pipes shown in the section on page 380. Modern lavatory basins, whether of earthenware or fireclay, are invariably provided with self-contained overflow passages of ample size, and readily accessible for cleansing, two



atures which your contributor emphasises in his reply to question 6—thus contradicting his own drawings *re* question 4.

Instead of the common cottage type of earthenware basin fixed against the wall, one of the numerous and handsome types of enamelled fireclay pedestal lavatories—entirely clear of the wall—would be more in keeping with a house of this description. This, however, is by the way, but it may be added that even the cheapest lavatory on the market now has its outlet near the back of the bowl as possible, not in the centre.

(f) It is asserted that a 1 in. overflow pipe will discharge all the water admitted by a 1½ in. (nominal) tap. The reason for the word in parentheses puzzles me, but your contributor has marked his supply pipe 1½ in. diameter, and all specified diameters of water-supply pipes, whether lead, iron or copper, are not merely “nominal,” but real and actual measurements. May I suggest a simple experiment at this point, viz., Let two water supply pipes 1½ in. diameter discharge full bore under average pressures to one lavatory bowl having the plug carefully fitted to the outlet, and with a 1 in. diameter overflow pipe, and note the result. I think I can foresee a “swift, sudden, and decisive” movement to turn off those taps, and I should suggest that the experiment be conducted somewhere than in a private bathroom, although I cannot pretend to any exact knowledge as to the capabilities of 1½ in. lavatory taps (nominal or otherwise), having never seen one so large: in fact, rarely a 1 in. or even ¾ in., the size generally met with being the humble, but useful and popular, ½ in.

I have assumed that it was intended to provide hot water as well as cold to both the lavatory and the bath (although there is nothing shown on his drawings to indicate this), but even if there were only one tap, it is misleading to say that a 1 in. overflow pipe can receive water *under no head at all* as fast as 1-1½ in. tap (though two, of course, are implied) will deliver it under a pressure of scores or hundreds of pounds into a lavatory basin—“which,” as Euclid says, is absurd,” or, if one may use our modern equivalent, not likely.”

It is impossible without encroaching too much upon your valuable space to criticise fully all our author's details, but modern developments of sanitary work and appliances would have been better represented by:

(1) Some reference to fireclay baths, which are very often fixed in good class bathrooms in preference to cast iron.

(2) If the bottom of the bath had been shown in the section sloping towards the outlet instead of dead flat.

(3) If the fallacy of the 1 in. overflow-cum-1½ in. tap had not been repeated in the case of the bath (1 in. taps are more usually fitted to baths than 1½ in.).

(4) If the lavatory waste pipe had been shown 1½ in. or 1½ in. instead of 2 in. diameter. In either case a 2 in. anti-syphonage pipe to a lavatory trap is unnecessarily large and wasteful.

(5) If the hopper had been shown with an improved self-contained trap standing clear of the floor with a good water area, as now generally adopted, instead of the old-fashioned separate pedestal trap with connected inlet and large fouling surface.

(6) If ¾ in., or at most 1 in., taps had been shown above the sink.

But the most surprising “model reply” of all is that offered for the last sentence in question 6: “Why are water-waste-preventing cisterns made with sloping sides?” The answer sought by the framers of that question was undoubtedly: “To avoid the breakage which might otherwise be caused by frost, the corners of the shells being also rounded as a further safeguard.” The reply not only misses the point altogether, but

leads off with the startling assurance that the “head” of water is increased by sloping the sides of the cistern, having apparently persuaded himself that “head” is produced *laterally* (though the *vertical* theory still survives, I believe), and then as an after-thought adds that sloping castings are more easily withdrawn from the moulds. The question, however, says nothing about castings any more than lead-lined or fireclay cistern shells, all of which require to be more or less tapered, and for the same reason. Moreover, this remark about the moulding of castings is quite irrelevant, as iron cisterns could be cast with the sides vertical, or tapering the other way, if necessary.

W. H. KNIGHT, Assoc. Inst. San. Eng.

#### *Superfluous Paint and Plaster.*

To the Editors of THE ARCHITECTS' AND BUILDERS' JOURNAL.

SIRS,—With reference to your note under this heading in the Journal of June 3, p. 385, it is a well-known fact that most oak panelling which dates back to Jacobean and earlier times has been painted, but I cannot imagine that so many “Philistines” have existed, judging by the great number of painted oak-panelled rooms there are. That is to say, I think oak panelling was used to keep out the cold from the rooms warmed with wood fuel, and that it was a national wood, or rather a universal wood, in the same way as red deal is a universal wood to-day. For the same reason that deal panelling is painted to-day, so was oak painted.

I am well aware of the fact that oak panelling makes a room gloomy, and that a Georgian owner or tenant would rather have a bright sunny painted wall than a gloomy oak wall. They lived, at any rate, 100 years nearer Jacobean times, and, just as we do not value Georgian oak panelling, they did not value Jacobean oak panelling—it was not old enough.

I venture to say that in 300 years' time the paint will be taken off our red deal doors and panelling—and those who have seen old deal after the paint has been removed have found it to have a beautiful depth of colour—with the result that our descendants will call the people who are living to-day both vandals and Philistines.

There is another aspect of the painting of old oak, which is, that if it had not been painted most of it would not have been preserved, especially that which has been placed in damp houses.

My house is panelled with old oak, and since I have had the paint cleaned off it I find that the rooms are so dark that I have to have artificial light in the day time, even in June. The oak has been preserved most admirably by the paint, and, while the rooms are more artistic according to modern ideas, they are certainly more depressing.

J. H. KERNER-GREENWOOD.

[Mr. Kerner-Greenwood's remarks amplify rather than contradict the note to which they refer; but we cannot think that the attempted parallel between oak and deal is altogether happy. Painting supplies a worse surface to the one and a better to the other.—EDS. A. AND B.J.]

#### *Architecture in Australia.*

To the Editors of THE ARCHITECTS' AND BUILDERS' JOURNAL.

SIRS,—In correcting a slight error in a former issue of your paper on “Architecture in Australia,” Mr. Nicholas Shiels, B.A., has been caught napping.

“The greatest city in the Southern hemisphere,” as he grandiloquently writes, is not Sydney, but Buenos Ayres, which has a population of a million and a quarter at least, while that of Rio de Janeiro also is larger than the capital of the Land of the Southern Cross.

I. H. WISHART.



## ENQUIRIES ANSWERED.

*"Fair-Wear-and-Tear" Clause in Leases.*

ANSTRUTHER (Middlesex) writes: "Would the enclosed covenant include re-pointing, and does the 'fair-wear-and-tear' clause apply to the demised premises or the fixtures only?"

[Extract from Lease.—"And also will from time to time during the said term as often as occasion shall require well and sufficiently repair paint whitewash scour cleanse glaze empty amend and keep the said premises hereby demised with the appurtenances in a good and tenantable state of repair. And the said premises being so well and sufficiently repaired and kept as aforesaid will at the end or other sooner determination of the said term peaceably and quietly surrender and yield up unto the Lessor together with all the fixtures upon the said premises fair wear and tear and damage by accidental fire only by the Lessees and such trade fixtures which may be fixed to the said premises by the Lessees and which trade fixtures the Lessees shall be at liberty to remove at the end of the said term making good any damage occasioned to the said premises thereby. And in particular will paint with two coats of good oil colour and in a workmanlike manner the outside wood and ironwork of the said premises once in every three years of the said term and such parts of the inside of the said premises as have been usually painted once in every seven years of the said term and will at the same time whitewash and colour such parts of the inside of the said premises as are usually whitewashed and coloured."]

—I am of opinion that the liability of the lessee under the clause quoted is limited to such repairs as are reasonably necessary to keep the premises in a tenantable condition—that is to say, he is liable to repair all open or defective mortar joints which are likely to cause damage to the building by the ingress of wet, but I do not think him liable for any pointing which is little more than decorative in its character.

The fair-wear-and-tear clause applies to the whole of the premises (including fixtures), both by common law and by the actual wording of the lease which you quote.

F. S. I.

*Store in Chalk Cliff.*

HARTLEYAN (Dover) writes: "The accompanying rough sketches show alternative suggested methods of constructing a store at the base of a chalk cliff, which has been sloped back approximately as shown. Please state how much of the superimposed load should be provided for in the arch, and give the method of arriving at the distribution of the loading."

"I should also be glad of your advice as to relative merits of the two types, A and B, observing that in case A the arch is proposed to be constructed of thick concrete ribs with a comparatively thin slab between, and in case B the arch will be continuous from end to end of the store. From an economical standpoint, B appears to have a slight advantage, as the total amount of material to be removed is less, and the contour also appears better adapted to resist the pressures. In either case the walls will be lined with plain concrete or brickwork and drains provided all round outside same to carry off the water."

—It is a matter of opinion what pressure

would come upon the roof of the proposed store from the weight of the superimposed chalk. It cannot be calculated, as it depends to an unknown extent upon the possibility of fissures in the chalk which would allow a mass to break away and require full support. Method B seems the better of the two alternatives submitted, for several reasons. Extra reinforcement should be placed round the opening from the passage through the semi-circular lining.

H. A.

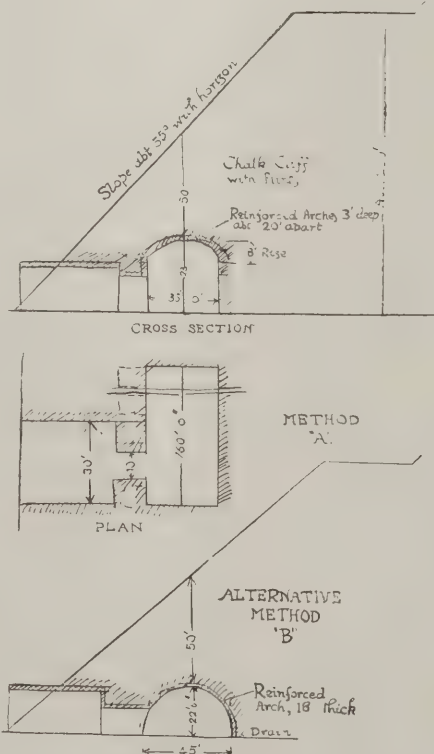
A further query from this correspondent asks: "Can your expert say what proportion of the superimposed load will come upon the arch supposing the chalk to be disintegrated and in lumps of moderate size, say, from 1 ft. cube upwards?"

"In any case, unless the chalk were in an absolutely dry and powdery condition, I take it that arching action in the chalk itself will occur in the same way as with ordinary earth, but I have no data referring to chalk available."

"Failing further information on the subject, I propose to calculate the maximum probable load by the method given in Charnock for tunnel arches, but I am not quite sure whether the angle of repose should be taken, for the above purpose, at that for solid chalk or for broken chalk. If the first, I propose to take my angle at 75 deg.; if the second, at 45 deg., and obviously the difference in the angle will make an immense difference in the calculated load and also in the scantling of the arch ring. Perhaps your expert will kindly say if my proposition is sound."

—Any calculations that may be made must rest upon so many assumptions that the result can only be approximate and perhaps wide of the truth. It is impossible to say definitely what the superimposed load would be, as although arching action must necessarily take place to some extent, the amount of loose chalk cannot be determined. An angle of repose of 60 deg. would be about the value to take in the calculation.

H. A.



STORE IN CHALK CLIFF.

*Liability of Owner for End Wall When Adjoining Premises Have Been Pulled Down.*

X. (Southampton) writes: "An old house was condemned and pulled down by the adjoining owner, A. When pulling down these premises the builder took down a lot of the old stone wall adjoining the premises belonging to B. Consequently, the right of support being taken away, the wall belonging to B has been considerably weakened and is in a dangerous condition. Can B compel A to rebuild his end wall as originally constructed (i.e., the portion of wall which has been pulled down), or must B strengthen his own wall at his own expense?"

—The easement known as "right of support" may be acquired: 1, by express grant; 2, by implied grant; 3, by prescription. (1) In the first case there must, of course, be some documentary evidence. (2) In the second, "an implied grant" usually arises when a person sells land "for building purposes," thereby implying a right to the upholding of the purchaser's buildings by the adjacent land, still the property of the vendor. Similarly, if a man builds two houses together in such a way that they mutually sustain one another, an implied right of support will arise on the sale of one only of them. (3) In the third case a right of support may be acquired by prescription (2 and 3 Will. IV., c. 71), the period of uninterrupted enjoyment being twenty years (by Section 2 of that Act). A leading case on the point is Dalton v. Angus. I am of opinion that, upon the facts as stated, such a right has been duly acquired by prescription. Naturally it now becomes a matter of evidence: Firstly, that the right has been duly enjoyed for the qualifying period; and, secondly, that the withdrawal of the support has caused the failure of the wall in question, or has contributed substantially thereto. The measure of damage will not necessarily be the complete rebuilding of the old wall.

F. S. I.

*Pressure in Circular Tank.*

S. (London, W.) writes: "Please supply an answer to the following question, which was set by the R.I.B.A. in June, 1911: A tank is circular on plan, 10 ft. in diameter, and full of water. At a depth of 5 ft. below the top, what would be the thickness of the sides, assuming them to be of mild steel, and using a factor of safety of 5?"

—The thickness of the sides of a circular vessel under water pressure may be determined by the formula:

$$t = \frac{p \times d \times f}{2 \times s} \text{ where}$$

t = thickness of side in inches.

p = pressure in lbs. to the square inch (.433 for each foot head of water).

d = diameter in inches.

f = factor of safety.

s = ultimate tensile strength of material in lbs. (mild steel 56,000).

$$\therefore t = \frac{2.165 \times 120 \times 5}{2 \times 56,000} = .0116 \text{ ins.}$$

by calculation or 31 S.W.G.

Actually the riveted seam would necessitate a larger allowance and practical considerations would dictate a considerably greater thickness than that able to withstand the pressure.

G.

*Surfacing Floors for Motor Garages.*

"E. G. C." (Ipswich) writes: "In designing a large garage, what are the best materials to use for the surface of floors, and



that is the most satisfactory method of finishing such floors?"

—A concrete floor, surfaced with cement and granite chippings, is probably the best for general use. The cement and chippings should be carefully gauged, so that only so much cement as is necessary fill the interstices of the granite chips is used, the object being to get the surface to show as much granite and as little cement as possible, since dropped oil appears to stain a cement surface to a perceptible extent. One of the modern preparations, such as Glidden's concrete floor dressing, may be used to improve the appearance and oil resistance of the surface. These are painted into the cement face and prevent dusting up, and are now generally well spoken of.

### THE BRITISH PAVILION AT THE LEIPZIG BOOK EXHIBITION.

The Leipzig Book Exhibition, for which the Exhibitions Branch of the Board of Trade has organised a British Section, owes its interest to its being restricted to a single industry and to the fact of its being held in a town which has been for centuries the clearing-house and centre of the continental book trade. The Leipzig Book Fair, too, is a meeting-place for publishers and booksellers from all parts of the Continent.

An excellent site was secured for the British Pavilion, in the centre of the Exhibition grounds, on the Avenue des Nations, opposite to the Pavilion of the German Government, and at a corner of the central terrace, from which the main avenues of the Exhibition grounds radiate.

The style of architecture of practically all the Exhibition buildings is characteristically German, but it was decided that the

British Pavilion should be in a style typically British. It accordingly takes the form of a stone Tudor mansion, with the mullioned windows, cobble-stoned courtyard, and timbered ceilings of the period. The whole of the stonework was reproduced by casting from actual buildings of the time in this country.

The Reception Hall, which is entered from the paved courtyard, contains a fine collection of Shakespeariana, displayed on old oak tables, while leading from it on either hand are two long libraries, also typical of the time. These are furnished with sets of bookcases, exactly copied in stained plaster from oak bookcases of the Tudor period.

A central hall, which also leads out of the Reception Hall, is used for the display of colour prints, examples of reproduction, and all such exhibits as need a top light.

Though restricted, as its name implies, to book production and the graphic arts, the exhibits are classified in sixteen groups. The first is concerned with the graphic arts, and includes an historical section of the various processes of engraving, etching, wood-cutting, etc. The second group includes the processes used in the illustration of books. The third group deals with the industry of book production, and the fourth, fifth, and sixth with the various items, paper, ink, etc., which go to the preparation of the book.

The seventh group is concerned with photography, and the eighth with the technique of facsimile reproduction. The ninth group deals with the manufacture of type, the tenth with printing processes, the eleventh with book-bindings, the twelfth with the publishing and sale of books, the thirteenth with newspapers, and the fourteenth with bibliography.

The building was erected under the supervision of Messrs. Gill and Reigate, of London.

### R.I.B.A.

#### *Vote of Thanks to Mr. Blomfield.*

At a meeting of the R.I.B.A. on June 29, when nearly 300 members were present, Mr. Ernest Newton, A.R.A., President-elect, said: "As this is the last meeting of the session I hope I may be allowed, before the business of the evening begins, to propose a vote of thanks to our President. (Loud applause.) Only those who have had the privilege of serving and working with Mr. Blomfield on the Council and on committees can know how much time and thought he has devoted to the interests of the Institute—(hear, hear)—and with what conspicuous ability he has conducted its affairs. It is not only for work in the Institute that we have to thank him, but also for much work outside. He has had official dealings with Government Commissions and Departments, with municipal and other authorities, and also with our colleagues in Paris, and his one thought and care has been to uphold the dignity and influence of the Institute. (Hear, hear.) I venture to say that Mr. Blomfield will long be remembered as one of the most brilliant and popular Presidents we have ever had—(applause)—and I will ask you, gentlemen, to give him a very hearty vote of thanks." (Prolonged applause.)

Sir Aston Webb, Past President: "Without detaining the meeting from the important business before them, I may say I am sure it is delightful to all of us, if we do not agree on everything, to agree on something, and we all agree with this vote of thanks to our President for what he has done during the two years that he has served us. It is no small business to act as President of this Institute for two years, especially with the work that is now going forward. We have been proud of our President wherever he has been; we



THE BRITISH PAVILION AT LEIPZIG BOOK EXHIBITION.



have been proud of him at the Institute, proud of him socially, proud of him at all the official meetings and functions that he has attended. He has always upheld the honour and dignity of the Institute, and I do not think anybody could have done better than he has. I will only second, with the greatest cordiality, this vote of thanks to Mr. Blomfield for his two years' services in the chair." (Applause.)

The President (who, on rising, was enthusiastically applauded) said: "Gentlemen, I am not going to detain you with a speech, because we have a great deal of important business before us, but I must thank you, Mr. Newton, and you, Sir Aston Webb, and all of you, gentlemen, for the very kind way in which you have treated this matter. It has been a great honour to me to occupy this chair, and a pleasure to do all that I could to maintain the prestige and advance the dignity of the Institute. Though we have not always seen eye to eye, I feel convinced we have all had the same object in view: the advancement of architecture and the maintenance of the Institute as the custodian of the architecture of this country. (Hear, hear.) I thank you very sincerely and heartily, and I hope you will think kindly of me, even if you do not agree with me." (Applause.)

## SOCIETIES AND INSTITUTIONS.

### *South Wales Institute of Architects.*

The prize drawings of the R.I.B.A. have been on exhibition in Cardiff in the hall of the Institute of Engineers. The exhibition was opened by Mr. Glendinning Moxham, F.R.I.B.A., of Swansea, President of the South Wales Institute of Architects, in the presence of a representative gathering. The president said that several years had elapsed since an exhibition of the kind had been held in Cardiff, but he hoped it would become an annual function. It was of the utmost importance that the students should have the opportunity of seeing the work displayed in these drawings, which were the prize efforts of the students of the Royal Institute of British Architects, representing as they did some of the finest draughtsmanship of the year. He hoped that the pupils and assistants in Cardiff would avail themselves of this opportunity of seeing the exhibited designs.

At the invitation of Mr. Moxham those present were then entertained to tea. The sub-committee who organised the exhibition were Messrs. Ivor Jones and T. E. Richards, with Mr. J. Sant, the honorary secretary. The drawings were on view from Wednesday till Friday (inclusive). On the Friday evening the local architectural students inspected the drawings, and Mr. Percy Thomas criticised the designs.

### *Doric Club, Newport.*

A well-attended meeting of this architectural club was held in Newport, when a paper entitled "Some Notes on Town Planning" was read by Mr. C. F. Ward, A.R.I.B.A., the Borough Architect.

This club, which was started only a few months ago, gives promise of meeting a distinct want in Newport and district, and already many interesting and well-attended meetings, exhibitions of drawings, etc., have been held.

An endeavour is being made to arrange for the local society to join with the Newport club for their annual outing, which takes place during the present month, when it is hoped that some modern London buildings will be visited.

P. T.

## SPECIAL LEGAL REPORTS.

### **Builder sues Builder : Judgment.**

#### *Bellew v. Elliott.*

June 20. Official Referee's Court. Before Mr. Muir Mackenzie.

Judgment was delivered in this action, which was brought by Mr. A. J. Bellew, a builder, of Highbury Place, against Mr. H. H. Elliott, a contractor and builder, of Queen Victoria Street, to recover £78 15s. 9d., balance of an account alleged to be due in respect of certain work carried out by plaintiff by arrangement with defendant, by whom the contracts were introduced, at Rickmansworth, Old Bond Street, and Portland Court. Defendant claimed a set off, and alleged that the work at Rickmansworth, the laying of a composition floor in a conservatory, was so faulty that the floor had to be relaid, and he disputed some of the charges in respect of the other work.

Mr. Muir Mackenzie, in the course of his judgment, said there were substantially three issues for decision, viz., (1) what was the sum recoverable by the plaintiff for work done at 99, Old Bond Street, (2) was the plaintiff liable for the flooring laid at Rickmansworth, and (3), was the plaintiff liable for commission on a contract for the erection of a studio at Rickmansworth? The principal objections raised to plaintiff's account by the defendant were that for the Bond Street work the wages charged were higher than had been paid to the men, and that a percentage had been added to the cost of materials for the Portland Court work. It was a fact that the rates of wages charged were in excess of those actually paid, and the argument put forward by the plaintiff in justification was that the rates, though higher, were about the rates which the defendant would have had to pay had he employed the men. There was great force in the argument, but he (the Referee) considered that it ought not to prevail. The defendant's obligation was to pay the amount paid by the plaintiff, and the plaintiff could not justify additions to that amount. As regards the number of hours worked at Old Bond Street, he would have to accept the evidence of the plaintiff and his men, but as regards the percentage charged on the cost of materials, the plaintiff under the implied contract could not recover, nor could he allow the charge for the plaintiff's own time for what he called the shop foreman's time. Deductions would have to be made in respect of the excess of wages and the percentage added to the cost of materials, leaving a balance in favour of the plaintiff of £52 13s. 8d. As to the counterclaim, he said that the correspondence showed that the material for the flooring was not ordered under a patent or trade name, and he could not therefore give effect to the contention of the defendant that the defect was due to the fault of the plaintiff. As to the commission, it was said that a verbal agreement was entered into under which the defendant was to receive a commission of 5 per cent. on the amount of the contract for £1,475, but the plaintiff said they were only to share the profits. The onus was upon the defendant to prove that there had been an exceptional contract, and in his opinion defendant had failed to prove it. There would be judgment, therefore, for the plaintiff on the counterclaim, which would be dismissed, and for the plaintiff on the claim for £52 13s. 8d. The costs of the action and counterclaim must be the plaintiff's except so far as they had been increased

by the claim for increased rates of wages. Judgment was entered accordingly.

### **Light and Air and Trespass Case.**

#### *Clark v. Sopwith Aviation Co., Ltd.*

June 29. Court of Appeal. Before Lords Justice Buckley, Kennedy, and Phillimore.

The interlocutory appeal of the plaintiff was heard in the action of Clark v. Sopwith Aviation Co., Ltd., from an order of Mr. Justice Coleridge. The plaintiff in the action is Mr. William Clark, of Canbury Park Road, Kingston-on-Thames, and the defendants are building an aeroplane factory in that thoroughfare adjoining the plaintiff's property. Mr. Clark's contention was that the light and air to which he was entitled had been obstructed, and that the defendants had trespassed on his wall, which they have damaged. In respect of these items he claims damages, and also asks for an injunction restraining the defendants from continuing the obstruction or further obstruction. The defendants paid £40 into court in satisfaction, but without denying liability. The plaintiff thereupon took out the £40 paid into Court and intimated to the defendants that, as that would not compensate him, he should proceed with the action. Mr. J. B. Matthews, K.C., for the appellant, said the defendants then went before the Master and also Mr. Justice Coleridge. The Judge confirmed the Master's order that the plaintiff should supply further and better particulars, that the defendants should have leave to amend and plead as though the payment into Court had not been made, and gave the defendants the costs in any event. Counsel contended that the solicitors for the defendants, having availed themselves of the rules and machinery of the Court, could not now change their minds and ask that what they had done should be undone by the Court. The defendants had admitted their liability unconditionally, and the only question that should go to the jury was as to the amount of damages. £40 was quite an inadequate amount.

Mr. Disturnell, K.C., for the respondents, said the payment into Court of the £40 without a denial of liability was a pure blunder. The plaintiff would not in any way suffer by the order of Mr. Justice Coleridge.

Lord Justice Buckley: You did not put your tackle in proper order. The plaintiff has as a result got the £40 in his pocket. He has, in fact, got more, because he has got your admission of liability.

Mr. Disturnell: And by a mistake, and my friend now wants that to act as an estoppel.

After further argument, Lord Justice Buckley said, in his opinion, the defendants committed a *bona-fide* error. Their paying into Court the £40 without a denial of liability was a slip. The Court had power to amend that. In his opinion the order was a right one and must be affirmed and the appeal dismissed. Further, it appeared to him that the plaintiff ought not, in the action, if it went on, to set up anything against the defendants in the nature of an estoppel. Should the action proceed and the plaintiff obtain damages in excess of the £40, that sum should be given credit for; if the judgment were for £40 or less he did not see how the defendants could get back what they had paid. Down to this appeal the costs would be the plaintiff's in any event. As to the costs of the appeal, neither side was right, and there would be no costs.

The other Lords Justices concurred.



## THE "JOURNAL" PLATES.

Note: In the printing of the Plates in last week's issue of the "Journal" a serious mishap occurred, the ink having "developed" from a black to a purple colour. We have made arrangements for reprinting, and if any readers care to send their Plates we will substitute (free of charge) a fresh set printed in black.

## COMPETITIONS.

*New School, Sunderland Road, Gateshead.*

Members and Licentiates of the Royal Institute of British Architects are advised that the conditions of this competition are set in accordance with the Institute Regulations for architectural competitions, and the Competitions Committee are in correspondence with the promoters with a view to getting them amended.

*New School, King Edward Street, Gateshead.*

Members of the Society of Architects requested not to take part in this competition without first ascertaining from the Secretary whether the conditions have been amended that they can be approved by the Society.

*£125 Concrete Cottage Competition.*

The result of the Concrete Cottage Competition organised by "Concrete and Instructional Engineering" was made known in the July number of that journal. The exhibition of the 249 designs sent in was opened at the Surveyors' Institution (Lecture Hall), 12, Great George Street, Westminster, S.W., on July 6, and will remain open until July 11, between 11 a.m. and 6 p.m. The assessors in their report express their satisfaction with the number and general character of the designs.

The first prize, amounting to one hundred guineas, was awarded to Mr. Ernest S. Thompson, architect, 5, Victoria Street, Westminster, S.W.; second, fifty guineas, to Mr. Charles Bulman Pearson, Licentiate R.I.B.A., 109, High Road, Chislehurst, W.; third, twenty-five guineas, to Mr. Harold G. Holt, A.R.I.B.A., 11, Popham Road, Wallasey, Cheshire; and fourth and fifth prizes of ten guineas each to Messrs. Leonard G. Hannaford, Rock Park, Rock Ferry, Cheshire, and Crosnier, 20, Brechin Place, South Kensington. Two consolation prizes of five guineas were also awarded to Messrs. Cocker and T. Hill, 20, Station Buildings, Stamford New Road, Altrincham; and F. W. Stubbs, A.R.I.B.A., Grayshott, Riborough Road, South Croydon. The assessors were Mr. Max Clarke, R.I.B.A., Professor Beresford Pite, R.I.B.A., and Mr. Edwin O. Sachs, R.S.Ed.

*Neighbourhood Centre, Chicago.*

The City Club of Chicago are holding a competition for plans for a neighbourhood centre. A preliminary competition will be open to all, and a jury of five members, to be chosen by a joint committee of the Chicago Chapter of the American Institute of Architects and of the City Club, will select not less than eight nor more than fifteen plans for the final competition, in which 600 dollars will be divided equally among the authors of eight!! The drawings in the preliminary must be delivered on November 10, 1914, at the City Club, 315, Plymouth Court, Chicago; and will be in the final competition on January 15, 1915. Intending competitors should apply to the Civic Secretary of the City Club, at the above address.

## BRITISH SCHOOL AT ROME.

*Award of Architectural Scholarships.*

The Royal Commissioners for the Exhibition of 1851 have awarded the Rome Scholarship in Architecture, 1914, to Mr. Philip Dalton Hepworth on the recommendation of the Faculty of Architecture of the British School at Rome, and, on the recommendation of the same body, the Royal Institute of British Architects have awarded the Jarvis Studentship to Mr. Ernest Cormier. The Rome Scholarship is of the value of £200 per annum, and is tenable for three years at the British School at Rome. It is open to students of British nationality under thirty years of age. The Jarvis Studentship, which is awarded on the result of the final competition for the Rome Scholarship, is offered to the student or associate of the Royal Institute of British Architects who is placed next in order of merit to the winner of the Rome Scholarship. The Studentship is of the annual value of £200, tenable at the British School at Rome for two years.

Mr. Hepworth, the winner of the Rome Scholarship, is twenty-six years of age, and has studied both at the Architectural Association of London and at the Ecole des Beaux-Arts in Paris. He was elected an Associate of the Royal Institute of British Architects in 1912. Mr. Cormier, who wins the Jarvis Studentship, is a French Canadian, having been born in Montreal in 1885. He is a Bachelor of Applied Science of the Polytechnic School of Montreal, and has obtained the Certificate of study in Architecture at the Ecole des Beaux-Arts. The work done by the competitors in the painting, sculpture, and architecture sections is being exhibited at Crosby Hall during the present week.

The Rome Scholarship in Decorative Painting has been awarded, on the recommendation of the Faculty of Painting of the British School at Rome, to Mr. John Miles Bourne Benson, aged twenty-five, who studied at Dulwich College and the Slade School. The scholarship is of the value of £200 per annum, tenable at the British School at Rome for three years. The subject selected was "The Judgment of Paris," to be executed in oil or tempera on a 7 ft. by 5 ft. panel. The work in this competition is also being exhibited at Crosby Hall.

*Change of Address.*

Mr. J. Craddock Perkin, F.R.I.B.A., has removed his office to Bridge House, 181, Queen Victoria Street, E.C., close to Blackfriars Station.

*Improvement Scheme, London.*

The Sanitary Committee of the City of London Corporation have submitted a scheme for the improvement of the Cloth Fair area, which comprises twenty-four houses in Cloth Fair and two sites of houses already pulled down, at a total estimated cost of £43,000.

*Glasgow Municipal Buildings.*

Glasgow's new municipal buildings, of which the King, accompanied by the Queen, laid the foundation stone yesterday, will provide a floorage of 93,031 sq. ft., and the Council Chamber will accommodate 123 councillors. The estimated cost of the scheme is £168,228, being £137,728 for the new buildings and £30,500 for altering the existing buildings. The architects are Messrs. Watson and Salmond, F.R.I.B.A., of Glasgow, a specimen of whose work was illustrated in last week's issue.

## THE BUILDING TRADE CRISIS.

An agreement between the London Master Builders' Association and the Society of Operative Stonemasons was signed last Saturday, and it is probable that other sectional settlements will be effected during the present week. In every case the agreement will be reached within the recommendations of the National Board of Conciliation, of which the text was published in our issue of June 10, p. 417.

The following statement has been received from the secretary of the L.M.B.A.:

"Sirs,—Certain interested parties seem to have given free rein to their imagination in disseminating through the Labour Press detailed descriptions of disputes and antagonism within the ranks of the London Master Builders' Association. These statements have hitherto been ignored, but lest the public, or the workmen in particular, should be misled or deceived I beg to claim your indulgence to state that all such representations are not only inaccurate but, I fear, wilfully so, and there is no foundation whatever for such malicious reports. Both at the meetings of the Council and at the general meetings of this Association all decisions have been practically unanimous, and there has been no conflict or antagonism whatever. In fact, it is difficult to imagine how any dissensions could arise on the particular points at issue.

"Much misconception also apparently exists as to the attitude of the London Master Builders' Association towards Trade Unionism. It has been represented that the Association desires to secure the advantage of employing non-Unionists at lower wages than Trade Unionists, and that for this or some other reason favour or preference is shown to non-Unionists, and endeavours are made to check the propagation of Trade Unionism, which is resented by the Trade Unions.

"In order to remove any such erroneous ideas, a statement of the principles which guide this Association on this subject may be of service at the present juncture. The Association offers no objection to the fair and peaceful propagation of Trade Unionism. That is to say that the Unionist workman should be quite at liberty to impress upon his fellow workmen his arguments and views on Trade Unionism (and, vice versa, the non-Unionist should be at liberty to do the same), provided, of course, that such discussions do not interfere with the progress of work. The Association objects only to coercion and persecution being exercised on either side, and cannot consent to any of the workmen being driven from employment or maltreated because of the attitude they may see fit to adopt on the question of Trade Unionism.

"The Association shows neither favour nor prejudice on either side; both are equally eligible for employment; both are paid the same rate of wages, and work under the same terms and conditions as to hours of labour, overtime, etc. If by fair and reasonable argument the Trade Unionists could convert all non-Unionists to their views, and by such means the non-Unionists were eliminated, the Association would accept the situation with equanimity. It stands for 'fair play and no favour,' and any representations to the contrary are both unjustifiable and incorrect.—Yours, etc.,

"S. B. DEPREE,

"Secretary, London Master Builders' Association.

"Koh-i-Noor House, Kingsway, June 30."



## R.I.B.A. FINAL EXAMINATION.

## ALTERNATIVE PROBLEMS IN DESIGN.

*Instructions to Candidates.*

1. The drawings, which should be on uniform sheets of paper of not less than Imperial size, must be sent to the Secretary of the Board of Architectural Education, Royal Institute of British Architects, 9, Conduit Street, W., on or before the dates specified below.

2. Each set of drawings must be signed by the author, and his full name and address, and the name of the school, if any, in which the drawings have been prepared, must be attached thereto.

3. All designs, whether done in a school or not, must be accompanied by a declaration from the student that the design is his own work and that the drawings have been wholly executed by him. In the preparation of the design the student may profit by advice.

4. Drawing for subjects (a) are to have the shadows projected at any angle of 45° in line, monochrome, or colour. Drawings in subjects (b) are to be finished as working drawings. Lettering on all drawings must be in a clear scholarly character.

*Subject XVI.*

(a) An island on a river, about 240 ft. by 100 ft., is the site for an hotel and tea gardens. The usual accommodation for a country hotel, together with ample balconies, having suitable outlook, is to be provided. There should be accommodation for housing boats. The general level of the island is 8 ft. above the river, which in flood rises 6 ft.

Drawings Required.—Block plan to 1-16-inch scale, with other drawings to 1/8-inch scale.

(b) a dairy and farmstead (60 cows).

Drawings Required.—Plans to 1-16-inch scale. Elevations of portions and sections to 1/8-inch scale, with 1/2-in. scale details.

*Subject XVII.*

(a) A circular hall for meetings, concerts, etc., to seat 2,000. An organ, and the usual cloak rooms and retiring rooms must be provided. The building to be considered as being on a detached site, and the façades to be in stone.

Drawings Required.—1/8-in. scale and a detail to 1/2-in. scale.

(b) An elementary mixed school for 200 children for a rural district. The area of the site not limited, but the school is to be designed on the corridor system. A manual instruction room and a cookery school are to be included.

Drawings Required.—Block plan to 1-32-inch scale. Other drawings to 1/8-inch scale, and detail through hall to 1/2-in. scale.

*Subject XVIII.*

(a) The organ case in the circular hall (see Subject XVII. (a)). The longest pipe to be 32 ft.

Drawings Required.—1/2-inch scale with some details to not less than 1/4 full size.

(b) A group of small dwellings for twelve aged couples, to be considered from a practical point of view. Each dwelling to consist of at least two rooms. A common dining hall and kitchen offices to be provided. Site having a frontage of 80 ft. looking S.E., on the outskirts of a town.

Drawings Required.—1/8-inch scale, and details of different portions to 1/2-inch scale.

*Dates for Submission of Designs in 1914-1915.*

|              | SUBJECT XVI. | SUBJECT XVII. | SUBJECT XVIII. |
|--------------|--------------|---------------|----------------|
| U. Kingdom   | Aug. 31      | Oct. 31       | Dec. 31        |
| Johannesburg | Oct. 31      | Dec. 31       | Feb. 28        |
| Melbourne    | Nov. 30      | Jan. 31       | Mar. 31        |
| Sydney       | Nov. 30      | Jan. 31       | Mar. 31        |
| Toronto      | Sept. 30     | Nov. 30       | Jan. 31        |

## BOARD OF ARCHITECTURAL EDUCATION.

The Board of Architectural Education of the Royal Institute of British Architects announce that the designs submitted by the following students who are qualifying for the Final Examination have been approved:

## SUBJECT XIV. (a).

*Design for Council Offices.*

|                    |                        |
|--------------------|------------------------|
| W. Alison.         | W. E. W. Terrell.      |
| § G. Allen.        | H. S. Triscott.        |
| * W. Allison.      | H. F. Walker.          |
| C. Ap-Gruffydd.    | * P. G. White.         |
| J. R. Armstrong.   | J. F. Wilson.          |
| * H. Battiscombe.  | W. C. Young.           |
| † J. Blackford.    | H. L. Charles.         |
| † C. J. Brooks.    | † R. A. Duncan.        |
| † T. H. Broomhall. | G. M. Eaton.           |
| J. M. Brown.       | S. Fernyhough.         |
| R. Bowes.          | † A. S. Forbes.        |
| † C. W. Callender. | R. Frater.             |
| L. E. Carreras.    | S. G. Garrett.         |
| H. F. Davies.      | † F. E. Gooder.        |
| V. Dyson.          | G. H. Gray.            |
| T. C. Evans.       | * C. Grellier.         |
| C. A. Foote.       | H. V. Hague.           |
| L. S. Ford.        | E. J. Hart.            |
| A. L. Freaker.     | G. Hemm.               |
| † B. George.       | G. B. Howcroft.        |
| † H. F. Gossling.  | A. Jackson.            |
| † H. Gregory.      | † T. T. Jenkins.       |
| W. Griffiths.      | A. G. Johnson.         |
| † A. B. Hamilton.  | W. O. Jones.           |
| G. L. Head.        | † M. D. N. Koch.       |
| J. D. Hossack.     | * F. C. Langrish-Toye. |
| † J. H. Jacob.     | W. V. Lawton.          |
| C. H. James.       | H. A. Lister.          |
| § H. N. Jepson.    | D. R. Lyne.            |
| * L. F. Jones.     | J. B. Matthews.        |
| H. Z. Kassem.      | † A. L. Mortimer.      |
| G. A. Langdell.    | D. G. Mowat.           |
| E. C. Lavender.    | † W. F. Pennington.    |
| * G. S. Leadam.    | G. A. Rose.            |
| S. H. Loweth.      | † C. D. St. Leger.     |
| A. L. Macmillan.   | G. P. Stainsby.        |
| R. S. Moore.       | † A. E. Stott.         |
| W. N. Moserop.     | † J. A. C. Taylor.     |
| C. L. Pace.        | L. D. Tomlinson.       |
| † N. S. Robinson.  | † J. B. M. Walsh.      |
| * C. Rowntree.     | † N. B. Weekes.        |
| † G. Shengstone.   | * H. M. Whitehead.     |
| P. N. Stedham.     | N. F. Woodroffe.       |
| † K. Takekoshi.    |                        |

## SUBJECT XIV. (b).

*Design for Church Spire.*

|                    |                  |
|--------------------|------------------|
| F. A. Barley.      | C. C. Cheek.     |
| C. W. Craske.      | H. E. Crossland. |
| J. Dickinson.      | J. S. Fyfe.      |
| M. Hendry.         | K. B. Mackenzie. |
| A. H. Owen.        | M. Robertson.    |
| J. E. P. Toothill. |                  |

Designs for other subjects from the following candidates have also been approved:

|                   |                   |
|-------------------|-------------------|
| W. B. Binnie.     | † W. B. Gostling. |
| † D. C. L. Derry. | § I. Omar.        |

NOTE.—The architectural schools, etc., to which candidates were attached are indicated as follows: \* Members of Architectural Association. † Students in A.A. School. ‡ Students in Liverpool University School of Architecture. § Students at University College, London.

## PROJECTED NEW WORKS.

*Workhouse Infirmary, Ruthin.*

The Ruthin Guardians have decided to proceed with the erection of a new infirmary at an estimated cost of £4,500.

*Council Offices, Upholland.*

The Upholland (Lancs) Rural District Council have decided to erect new Council offices at an estimated cost of £1,800.

*Fifty Cottages, Wearmouth.*

The miners employed by the Wearmouth Collieries Company at Wearmouth and Hylton have decided to proceed with a scheme for the erection of fifty cottages, twelve of which are to be begun as soon as funds permit.

*Convenience, Derby.*

Plans for the erection of underground convenience in Upper Hill Street at a cost of £3,600 have been laid before the Derby Town Council.

*Houses, Bridlington.*

The Local Government Board have sanctioned a loan of £2,450 by the Bridlington Town Council for the erection of twelve workmen's houses in Pollard Place.

*Church Restoration, Croughton.*

Funds are to be raised for the restoration of the old Vicarage Church of Croughton, Northamptonshire, at an estimated cost of £700.

*Housing Scheme, Evesham.*

Evesham District Council have applied to the Local Government Board for sanction to borrow £3,370 for the carrying out of a housing scheme.

*Garden Streets, Hull.*

Plans have been submitted to the Hull Corporation Works Committee for laying out "garden streets" on the Chanterlan estate. The scheme involves the construction of forty streets and 1,000 houses.

*Asylum, Coulsdon, Surrey.*

The L.C.C. are negotiating for the purchase of 70 acres of land adjoining Cam Hill Asylum, near Coulsdon, Surrey, for the erection of a new asylum to accommodate 200 patients.

*Houses, Alnwick.*

The Alnwick Urban District Council have decided to build eighteen houses on a site given by the Duke of Northumberland, and the assistant surveyor is preparing estimates of the relative cost of building in stone and brick.

*Church Extension, Abingdon.*

It is proposed to enlarge the Abingdon Parish Church, Northants, so as to increase the seating accommodation from 220 to 420. The scheme will cost about £6,000.

*Library and Baths, Bradford.*

A Local Government Board enquiry has been held at Bradford into the application by the Corporation to borrow £6,780 for the provision of a branch library and cottage baths in Tennyson Place.

*Bradford.*

A Local Government Board enquiry has been held in Sheffield with regard to application of the Corporation for sanction to borrow £10,400 for the erection of working-class dwellings on the High Wincobank estate.

*Housing Scheme, Ealing.*

The Ealing Town Council at its last meeting adopted a housing scheme which provides for the erection of fourteen self-contained houses and four double tenement flats. The estimated cost of the buildings is £5,500.

*Bridge, Newport.*

The Local Legislation Committee of the House of Commons have approved a Bill promoted by the Newport Corporation for the construction of a new bridge over the river Usk. The bridge is to be 70 ft. wide.

*Exhibition of Drawings at the A.A.*

There is now on view at the Architectural Association, 18, Tufon Street, Westminster, a selection from the drawings submitted over to the recent exhibition of British Architecture in Paris.



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## ELECTRICAL NOTES.

*Electric Tolling Bells.*

A new type of electric bell has been introduced by the General Electric Co., Ltd., which, instead of employing the well-known trembler principle, said to have been invented originally by Edison, makes use of an entirely new method of construction. In this the hammer is connected to a rod screwed into an armature, which is attracted by electro-magnets. At the first current impulse the armature is drawn forward to the electro-magnets, the circuit is broken and the hammer is allowed to swing back to its full extent. As the hammer approaches the centre of its swing in the forward direction, current is again applied by a special form of contact, and the lift thus given to the hammer in addition to its own momentum applies an extremely powerful blow to the gong. It is claimed that the form of contact is unique and is self-clearing. The gong is cast in best bell metal, and, the striking action being slow, the full tone of the gong can be obtained, as the vibrations have time to clear away between each stroke. The carrying power of the bell is therefore greater than that of similar bells of the quick stroke type. These bells are made in a large range of prices, from one shilling to £37 10s.

*Bank Lighting.*

The Russian Commercial Bank in Lombard Street has recently been fitted with a scheme of electric fittings of somewhat unique design by Electrical Installations, Ltd. The fittings, which were designed and supplied by Siemens Brothers' Dynamo Works, Ltd., are sixteen in number, and are of the indirect type, employing 1,000 c.p. half-watt Wotan lamps. The bowl

of the fitting is 18 in. in diameter, and is finished in "old penny" bronze; it is quite plain, except for a cavetto mould which forms the rim, and is decorated with pateræ. The inside of the bowl is lined with opal glass, which acts as a highly efficient reflector for the half-watt lamp. The bowl is supported by three chains, which are held at a short distance by a restraining ring, so that they are almost parallel in their path to the ceiling plate. A metal tulip ornament conceals the cap of the lamp and the Goliath Edison screw holder. These fittings have a most artistic appearance, and there is a total elimination of glare, without much actual loss of efficiency.

*The "Hemming" Conduit Grip.*

The chief difficulty that wiring contractors have to contend with when quoting for cheap wiring is that slip-joint conduit does not comply with the wiring rules of the Institution of Electrical Engineers, which make it a *sine qua non* that all metallic coverings or sheathings for cables must have electrical continuity. Many devices have been introduced in order to overcome this difficulty, with more or less success, but, of course, the human factor enters into all wiring work, and into none more than the proper fitting together of lengths of slip-joint conduit. Small screws or wedges are easily forgotten by the wireman and overlooked by the inspector. The present device, which has been introduced by the Hemming Conduit Grip, Ltd., 174, Corporation Street, Birmingham, is not easily scamped or overlooked, because the essential parts of the grip are so easily visible. It comprises special cast-iron fittings, having a shoulder at each outlet, which is tapped to take a bright hexagon-headed screw, the threads of which penetrate into the bore. When the fitting is

drilled or bored to clear the tube the screw is in position, so that the thread is cut away on one side. On inserting the tube into the union or other fitting the screws are given a half turn, and the sharp edge of the uncut part of the thread cuts in the side of the tube and establishes a good electrical contact. Matters are so arranged that this turn of the screw brings the head on to the base of the fitting and makes a watertight joint. It is claimed that even if the tube is not a tight fit in the bore, the screw will grip it as it enters the bore to a sufficient depth for this purpose. The head is provided with a slot, so that it can be tightened up with a screw-driver, but a spanner gives the best results. The head is also marked just over the machined part of the thread, so that on turning the head so that the indicator faces the socket, the tube can be withdrawn. This grip can be used equally well with light gauge or heavy gauge tubing, and there is no fear of the former buckling. It has been shown that the conductivity of the joint is equal to that of the tube itself, and that the tube need not be scraped or otherwise treated in order to secure good electrical contact. One further advantage of the device is that there are no loose parts, as in some other grips on the market, the whole being self-contained. Naturally the cost of a close joint wiring system with these fittings only exceeds that of a system with ordinary fittings by the extra cost of the Hemming grips over that of the ordinary fittings; and the extra initial outlay will, we think, be amply compensated by the superior service which is undoubtedly rendered, a better job being ensured at the outset, with the implied consequence of superior durability. Ultimately, therefore, the device makes for economy as well as for convenience.



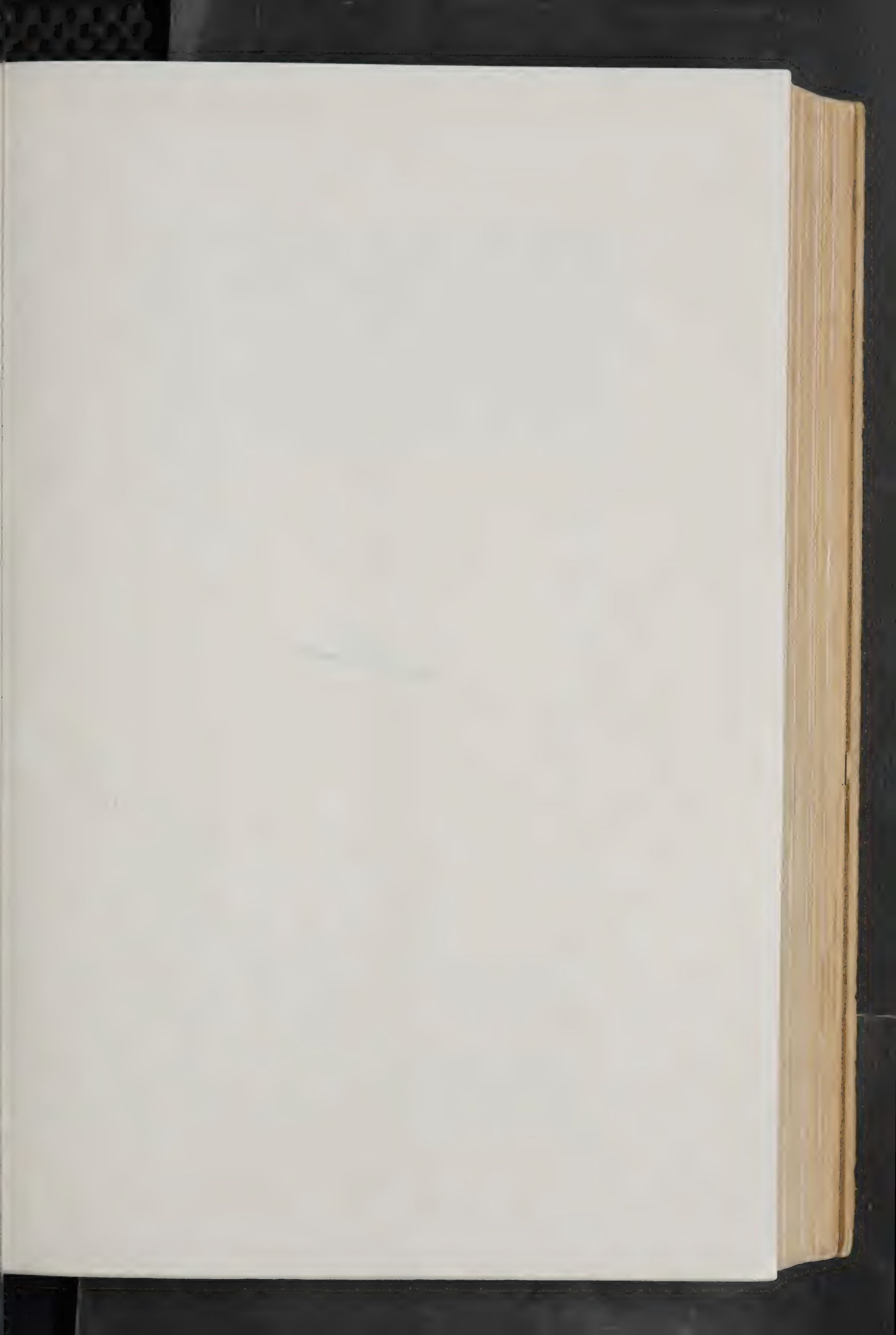
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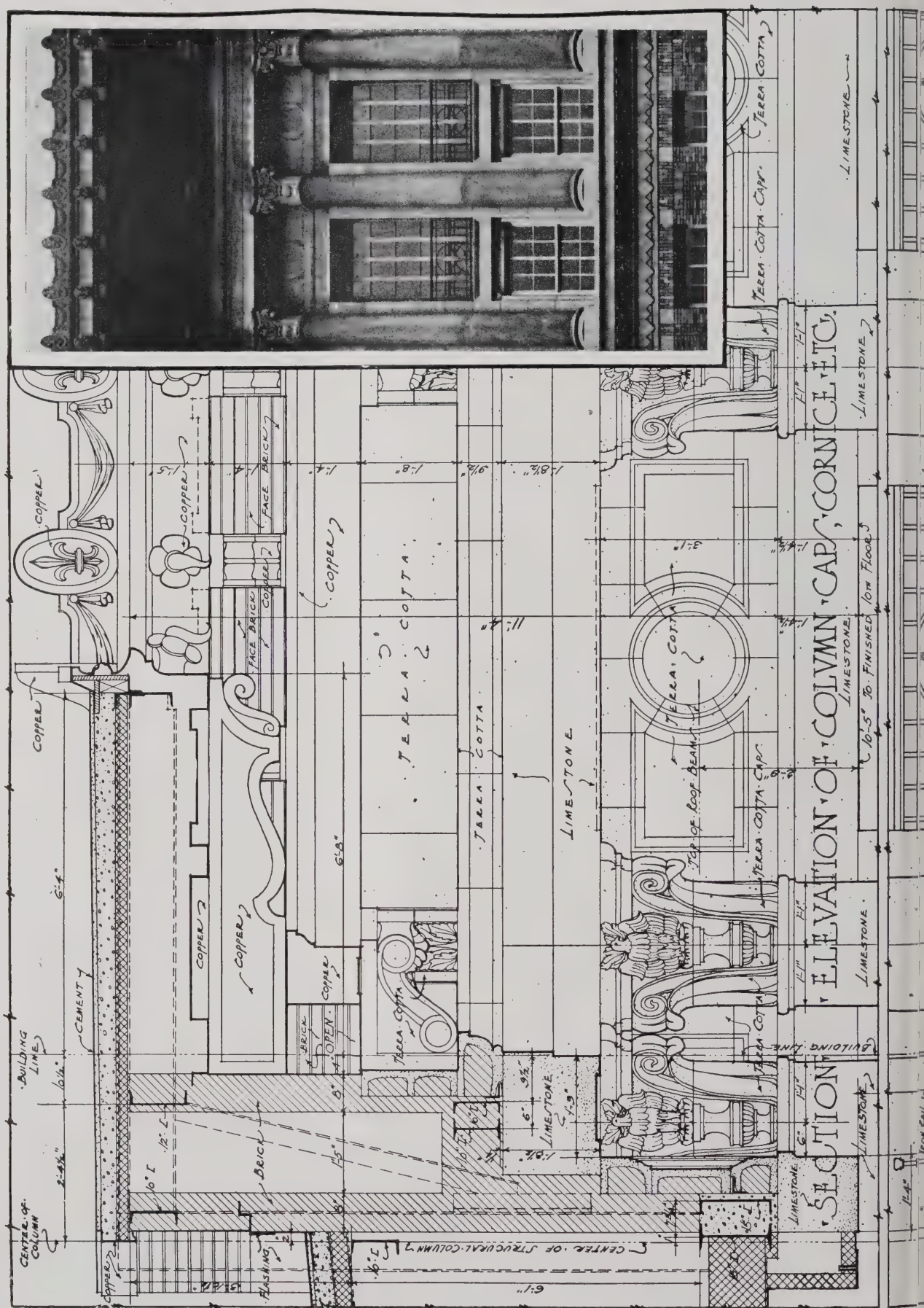
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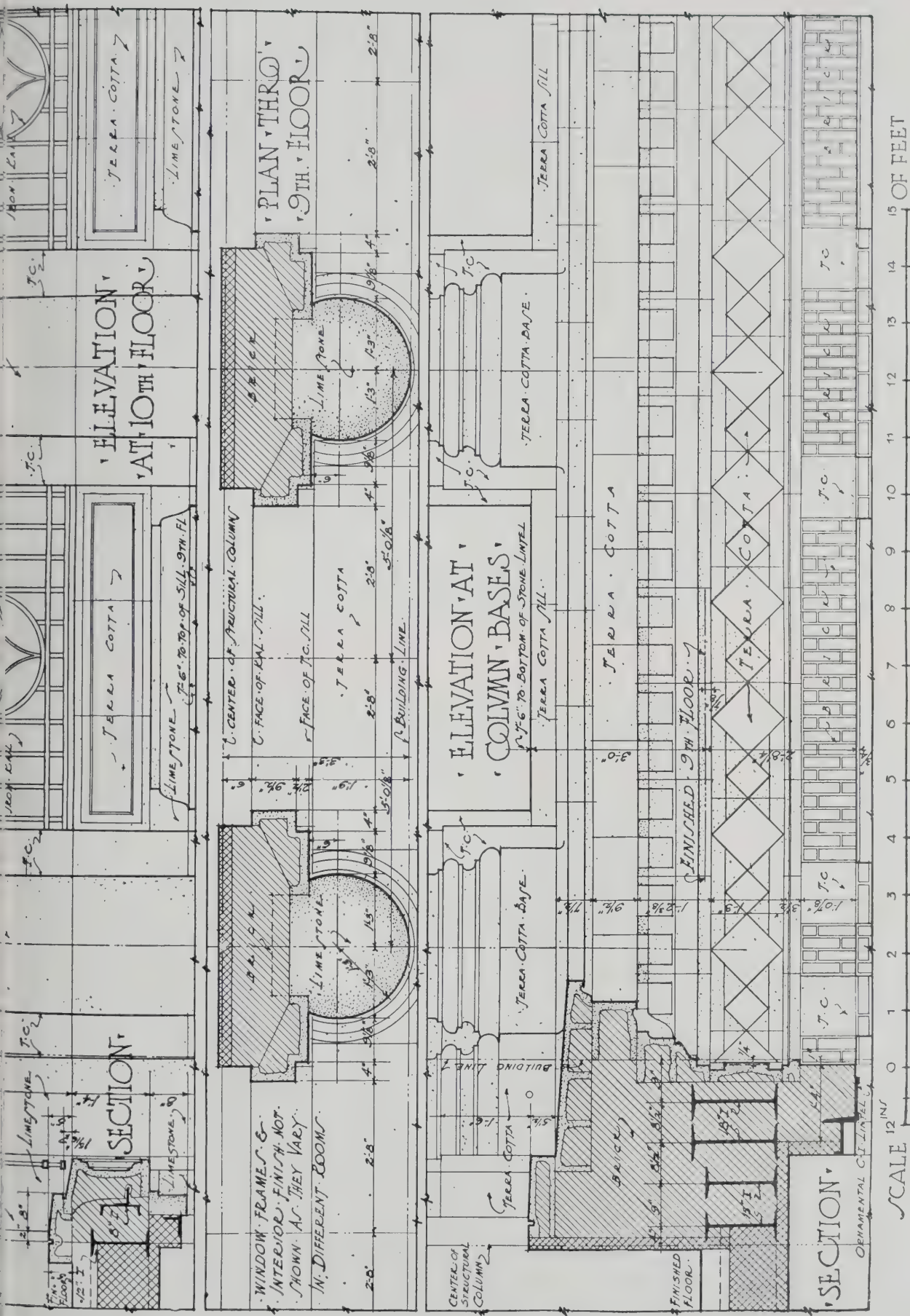












WORKING DRAWINGS BY WELL-KNOWN ARCHITECTS (NEW SERIES). XXX.—LORD AND TAYLOR DEPARTMENT STORE, NEW YORK: DETAILS OF COLONNADE AND CORNICE TREATMENT.

GOLDWIN, STARRETT, AND VAN VLECK, ARCHITECTS.



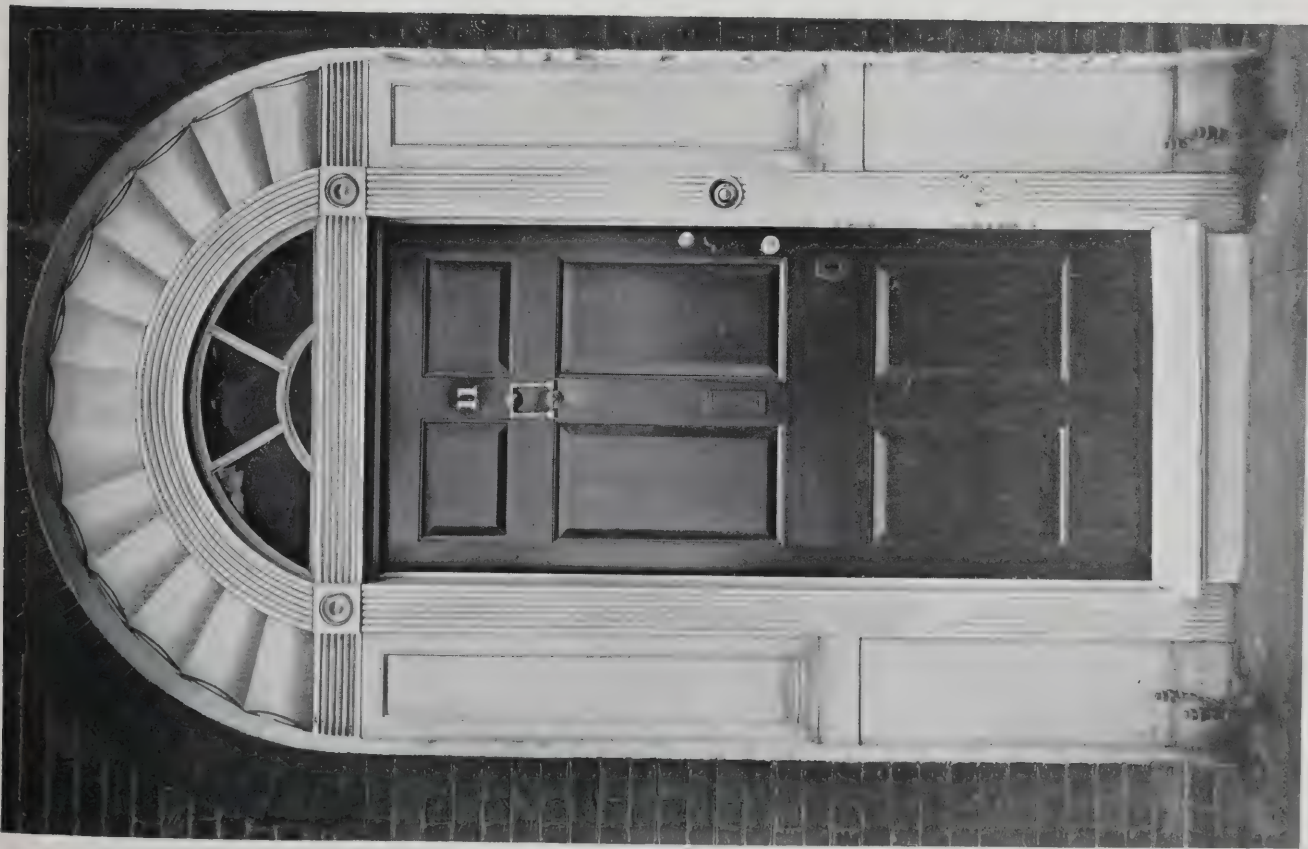






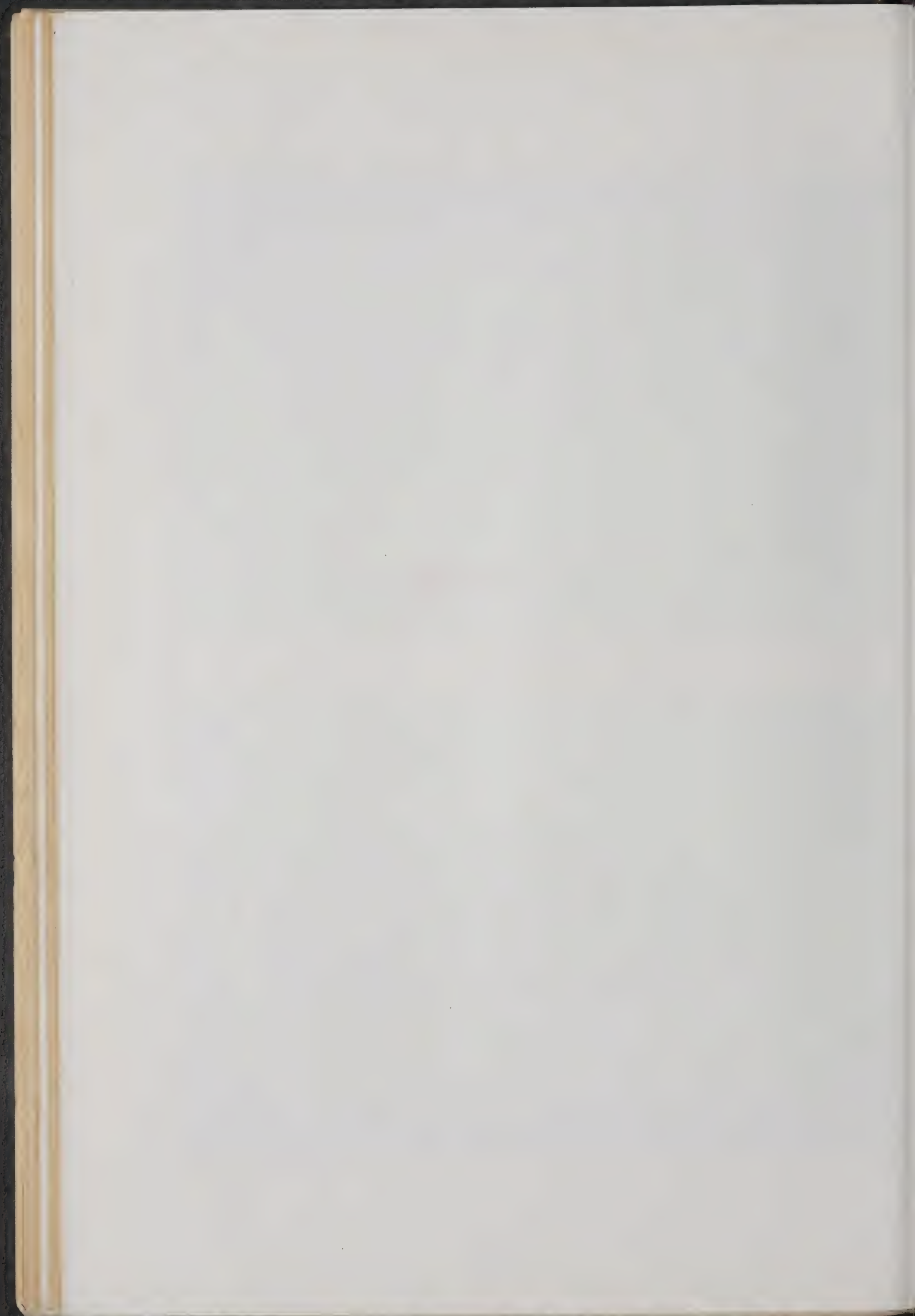
Doorway, The Green, Richmond, Surrey.

SMALL HOUSES OF THE LATE GEORGIAN PERIOD. XVI.—TWO DOORWAYS.



Doorway, Quarry Street, Guildford.





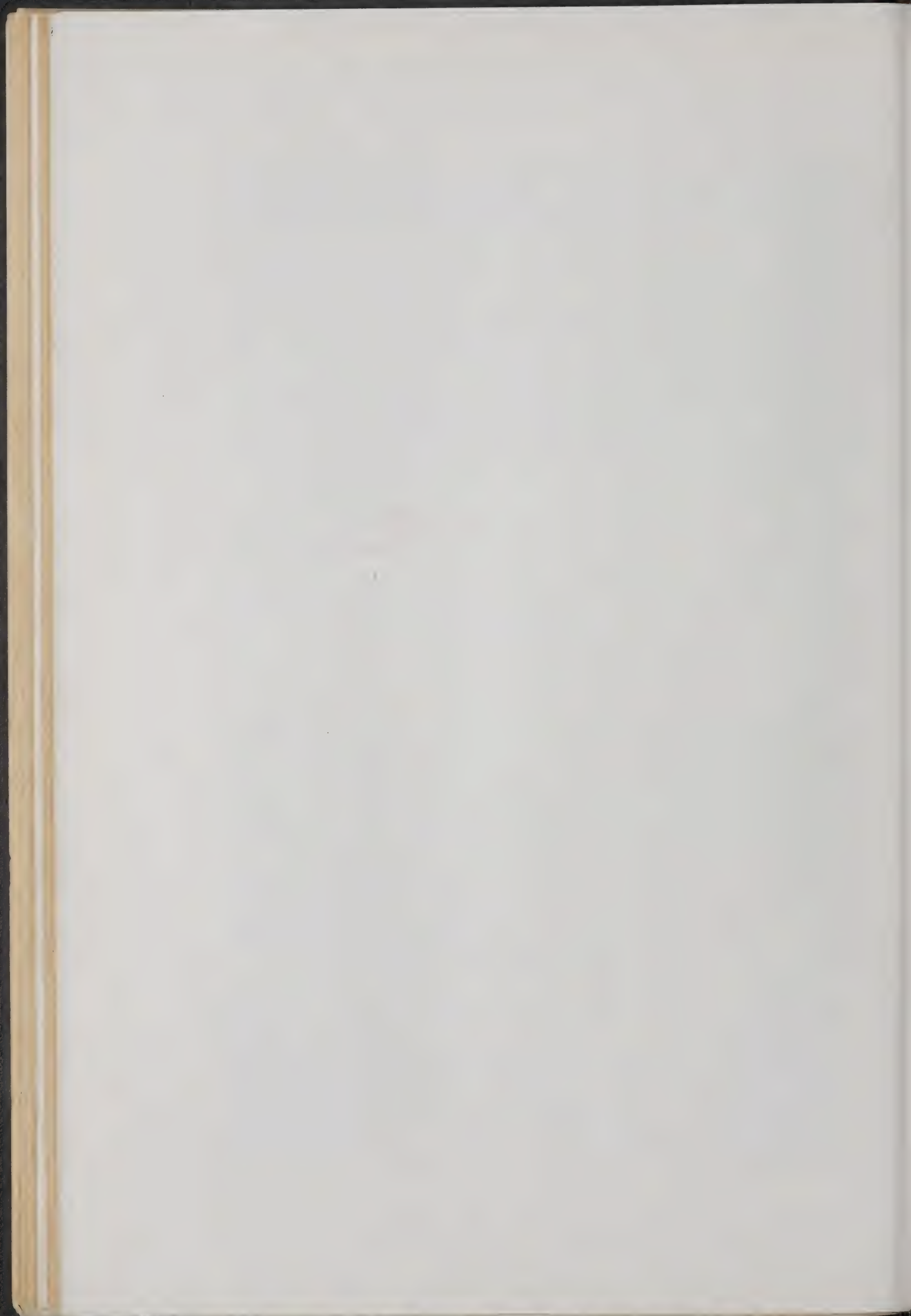




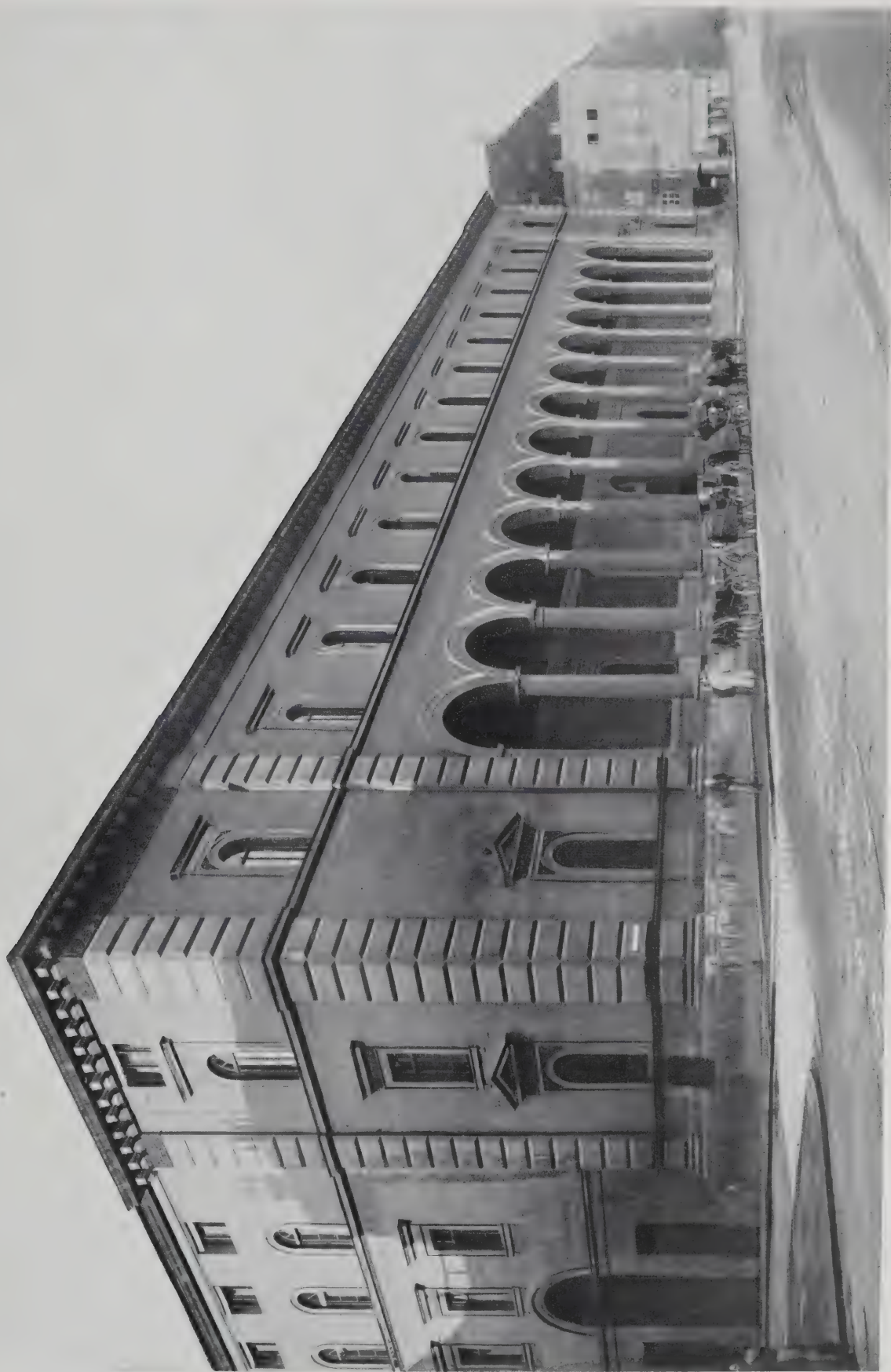
STUDENTS' DRAWINGS. XXII—ORDER FROM THE BASILICA ÆMILIA, ROME.

BY ERNEST HÉBRARD (GRAND PRIX DE ROME).



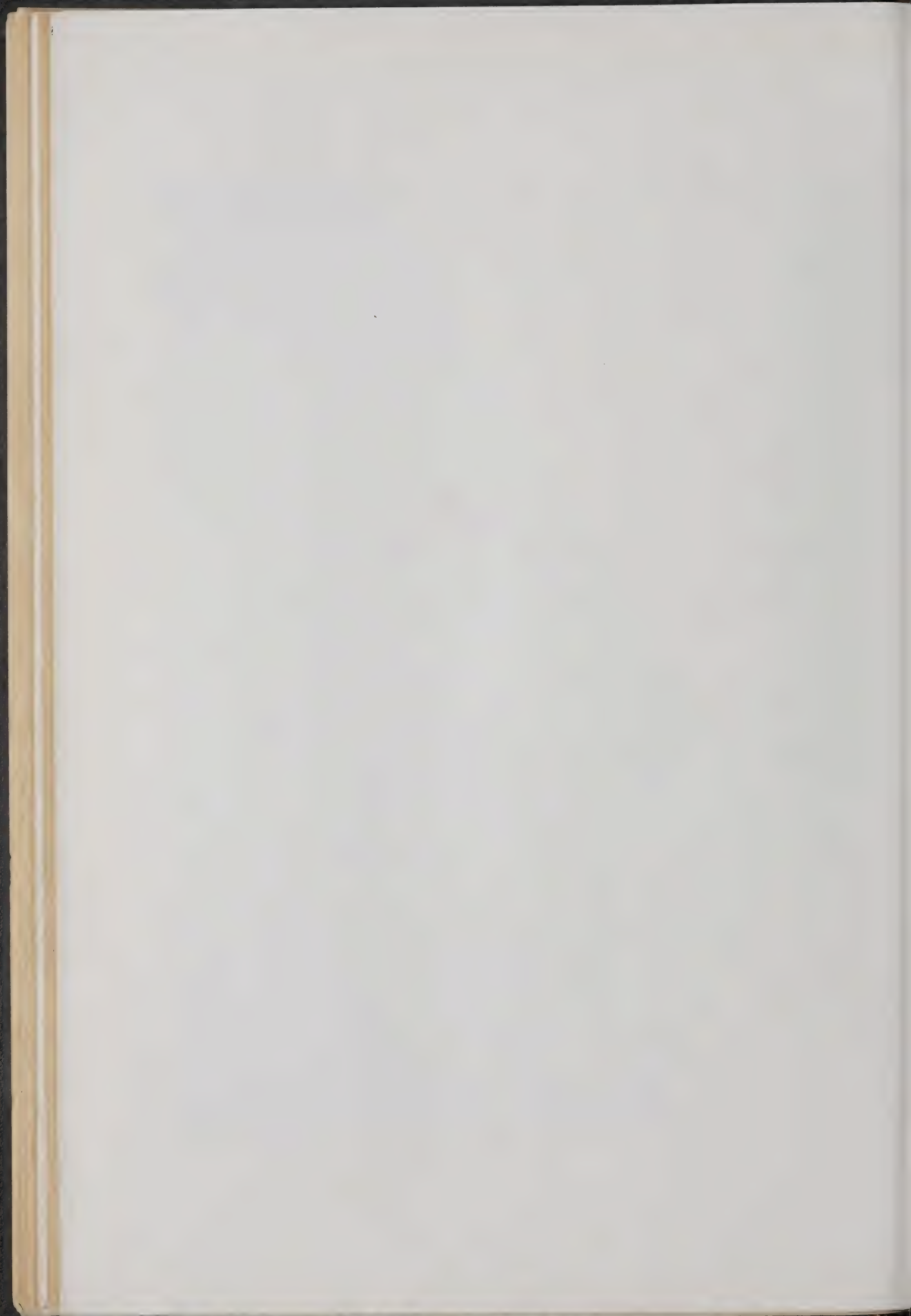






MONUMENTAL ARCHITECTURE. XXV.—ROYAL LIBRARY, MUNICH.  
VON KLENZE, ARCHITECT.









CURRENT ARCHITECTURE. LXXI.—NEW OFFICES FOR THE BURSLEM MUTUAL BURIAL SOCIETY, BURSLEM.

REGINALD T. LONGDEN, ARCHITECT.

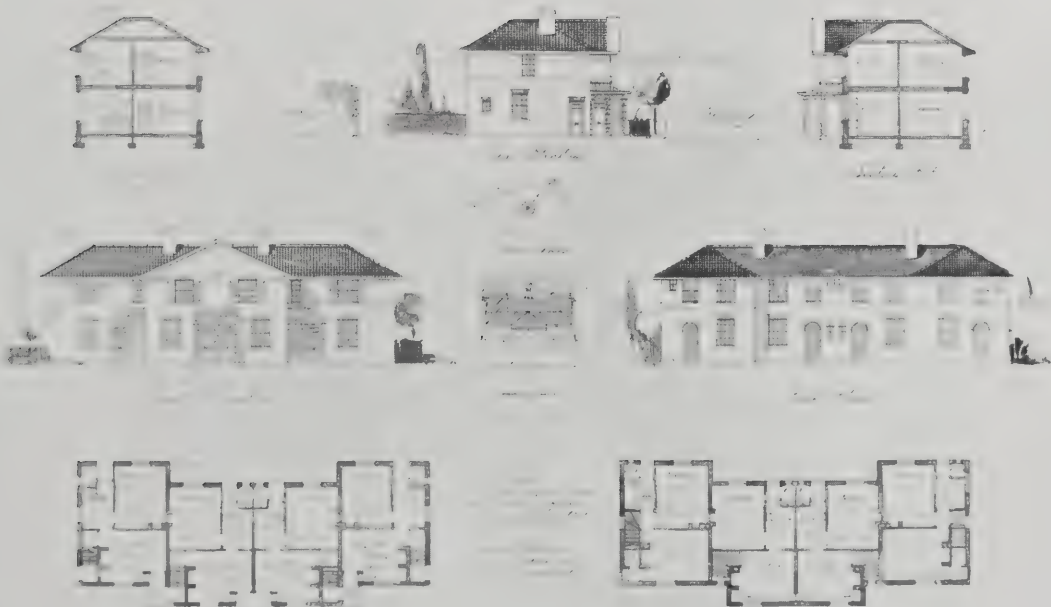








Houses costing £125 each.



Tenements costing £195 per pair







Showing the Detailed Steps of the Various Stages in the Promotion of such Schemes in Accordance with the Town Planning Procedure Regulations (England and Wales), 1912.  
Compiled by R IVESON DENHAM, *Assistant Solicitor to the Corporation of Huddersfield*, and L. ST. G. WILKINSON, M.Sc., A.M.I.C.E., *an Assistant Engineer to the Corporation of Huddersfield*.

ABBREVIATIONS.—L.A. = Local Authority. L.G.B. = Local Government Board. C.C. = County Council. Article or Art. = The Articles of the Town Planning Procedure Regulations (England and Wales), 1910. Act of 1909 = The Housing, Town Planning, &c., Act, 1909. Scheme = An Owner's Scheme proposed to be Adopted by an L.A. under the Act of 1909. Authorities for the various Steps appear in Square Brackets and Cross References to the various Columns appear in Round Brackets.

CHART OF TOWN PLANNING PROCEDURE FOR OWNERS' SCHEMES, TO BE ADOPTED BY LOCAL AUTHORITIES—STAGE 5.







THE  
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JOURNAL.

Wednesday, July 15, 1914.

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No. 93.



(From Piranesi.)



# THE ARCHITECTS' & BUILDERS' JOURNAL.

JULY 15, 1914.

CAXTON HOUSE, WESTMINSTER.

VOLUME 40. No. 1019.

## EDITORIAL.

FROM several sources we have received copies of a circular, signed "F. Houlton Wrench, Assoc.M.I.C.E. (chairman), and Francis A. Winder, F.S.I. (secretary)", and addressed (apparently to Licentiates of the R.I.B.A.) from "Corn Exchange Chambers, Wharf Street, Sheffield," under the date June 26, 1914. The circular is too long for reproduction *in extenso*, but the gist of it is as follows: The proposed new charter of the R.I.B.A. provides for the formation of a register of all practising architects and assistants who apply for enrolment within a certain time and subject to certain conditions. Corporate members of the Institute—that is, the Fellows and Associates—will be authorised to style themselves Chartered Architects. Incorporate members—that is, Licentiates—will be debarred from this privilege, and it is apprehended that their identity will be "lost among a number of Registered Architects enrolled later at the discretion of the Registration Committee or Board." Further, "this Committee or Board is to be created under the Charter, and will have a predominating proportion of corporate members (Fellows and Associates) as compared with all other classes." In view of these nervous apprehensions, Licentiates of the Sheffield district have held two meetings "to discuss the best means of guarding their professional status in the Institute." Presumably, the designations "chairman" and "secretary," following the names of the signatories to the circular, are derived from these meetings.

At the first meeting a resolution was passed to petition the Council of the R.I.B.A. to modify Clause 2 so as to include Licentiates under the term Chartered, but a letter to that effect sent to the R.I.B.A., with a request that it might be read at the special general meeting held on April 27, appears not to have been communicated to the meeting. It is supposed to have been ruled "out of order." At a second meeting of Sheffield Licentiates (who were, it is stated, supported by many Licentiates from other towns) it was, therefore, resolved to petition the R.I.B.A. Council "to modify the objectionable clauses, and, if necessary, petition the Privy Council to disregard the application by the Institute for the Charter in its present form, owing to the grave distinction between the classes." Each circular was accompanied by a stamped post-card bearing the following declaration: "I am in favour of petitioning the Council of the R.I.B.A., and, if necessary, the Privy Council, to safeguard the interests of Licentiates as regards adequate representation under the proposed New Charter, and to particularly ask that no distinction of title be made between Corporate and Incorporate members."

From this and from other symptoms of unrest it becomes pretty plain that the R.I.B.A. cannot hope to

escape the consequences that always attend the creation of an unenfranchised body of men—or women—who, sooner or later, are certain to rise in rebellion on realising that their obligations outweigh their rights and privileges. It would be mere hypocrisy to pretend that this circular is purely local and sectional; for it is really portentous of the general and general dissatisfaction among the Licentiates, who are everywhere chafing under their disabilities, and who, moreover, freely declare their resentment at being treated by the Institute like poor relations; but to suggest that on this latter point they are perhaps oversensitive would merely add fuel to the flames.

Nor is it of any avail to tell them that the remedy is in their own hands—that the Incorporate may become Corporate by qualifying for Fellowship, or that if they are not competent to take this step they had better resign. Such airy advice usually comes from some newly-fledged Associate, flushed with his success in the Final, and it is as futile as it is cynical; for they must know very well, those callow young Associates, that for various reasons, many of these Licentiates could not qualify by examination to save their lives. It is amusing, yet pathetic, to note in the Sheffield circular a touch of the very same sort of prejudice—we will not call it by an uglier name—against which the Licentiates are up in arms. They protest against "having their identity lost amongst a number of Registered Architects enrolled later at the discretion of the Registration Committee or Board." Thus a touch of nature makes the proud Associate and the meek Licentiate kin.

To be perfectly frank, we are afraid it has become more than ever apparent that the creation of this Third Estate or Licentiateship was an electioneering device to which the Institute resorted at a weak moment of emergency, and the unhappy scheme is now bringing forth fruit meet for repentance. For the Licentiates, though unenfranchised, have obviously considerable power to avenge the real and imaginary slights of which so much has been lately heard, and the threat contained in the Sheffield circular shows that they know quite well in which directions their dynamic-force may be most effectively applied. They have the strength, and they are manifesting the will, to wreck the Institute's proposed new Charter: and before Registration can have the remotest chance of success, some method of conciliating those who were called in to add weight to the demand, but are now disposed to throw their weight into the opposite scale, will have to be carefully devised. We are very solicitous for the dignity and influence of the Institute, and wish it well out of this awkward situation which has developed from its overwant of statesmanship. The most courageous and



straightforward way out of the difficulty is to enfranchise the Licentiates, and thereafter to insist most rigorously that no man shall be admitted to membership of the Institute unless he can give unequivocal proof of proper architectural education and training. It is through the crass folly of temporarily dispensing with the examination test that the Institute has so woefully weakened its position in an ill-advised endeavour to strengthen it. The R.I.B.A. should pin its faith to the schools.

In accordance with the declared intention of the Government to proceed with a scheme for Rural Housing, Mr. Runciman last week brought in a Bill to give the Board of Agriculture and Fisheries powers with respect to the housing in agricultural districts of persons belonging to the working classes, and to make provision with respect to the housing of persons employed by or on behalf of Government Departments when sufficient dwelling accommodation is not available. The second part of this introductory clause refers to Rosyth, to which "pressing case" it is proposed to devote £2,000,000, while rural housing in general is to be provided for by £3,000,000. At first sight the proposed amounts seem disproportionate to each other, since it is obvious that if Rosyth requires £2,000,000, £3,000,000 will not go very far towards providing cottages for agricultural labourers all over the country. But one may assume that the latter is only intended as a grant-in-aid—as a stimulus to the local bodies and private landlords, whom the Government is so fond of censuring, to provide the other funds required; whereas in the case of Rosyth the Government holds the sole responsibility. If such is the case, the Government must have a greater faith in the efficacy of local private effort than it would have us believe.

The Treasury have undertaken to borrow money by means of terminable annuities for a term not exceeding thirty years; but though the scheme will be conducted on an economic basis, this does not mean that the rents will provide for the repayment of the capital over a period of thirty years. With regard to the sinking fund on land, this will not be charged on the occupiers of the cottages. Mr. Runciman described the Bill as a small measure of seven clauses and "a very small proposal," and remembering the fanfares that accompanied Mr. Lloyd George's opening of his land campaign, no one will quarrel with this description. The effect of the measure on the building trade is likely to be negligible. Such slight stimulus as the grant may give to local building will be balanced by an access of apathy to many whom recent land legislation has already rendered apathetic in the matter of individual building enterprise. The scope of the Bill is not big enough to modify existing conditions to any serious extent, or, so far as we can see, to remedy materially the dearth of cottages.

Sir Thomas Brock's statue of Captain Cook, at the Admiralty Arch end of the Mall, was duly unveiled last Tuesday by Prince Arthur of Connaught. The fame of the navigator was necessarily the burden of His Royal Highness's tribute, and this no monument can make or mar; it is nevertheless a pity that artistic considerations should again have been lost sight of in erecting this memorial. Of the sculpture itself we have nothing to say, beyond that it is neither better nor worse than countless other statues of celebrities that pepper our streets and squares; there is nothing in its conception that distinguishes it from the rest of Sir Thomas Brock's work, nothing in its symbolical appendings that a child could not divine. But its position in relation to the Admiralty Arch is really

most unfortunate. From no point of view does the Arch provide a background; at the same time, the architecture—not to mention the huge standard lamp at which Captain Cook appears to be gazing—distracts one from the statue, and the statue looks an unwelcome intruder on the architecture. Its position at the side of the roadway gives the entire crescent a lopsided appearance without adding to its embellishment; it is not, as its position would seem to demand, in subordination to the scheme, and regarded as an isolated monument it is obtrusive, not impressive. The controversy as to the architectural treatment of the Mall has largely subsided, but the architectonic treatment and disposition of its statuary, as instanced by this example of how not to do it, still remain to be settled on less happy-go-lucky lines than those prevailing so widely in the Metropolis.

At the recent Rubber Congress one of the speakers expressed the opinion that the supply of rubber is so plentiful that we may confidently look forward to the time when the streets of all our towns will be paved with that material. This is a message of hope to the vast number of people who love the City, who wish to remain in it and for whom our new-fangled garden suburbs have no attractions whatsoever. The two chief evils of the modern city are the noise and the excess of traffic. In a certain measure one of these is responsible for the other, but neither of them can be completely eliminated. Even if arrangements could be made for all heavy goods traffic to be carried by separate routes there would still remain a constant stream of vehicles. It is not sufficient, however, to treat the surface of the road; if one analyses the confused rumble of a populous London street it becomes clear that the rolling of wheels and the clatter of hoofs together comprise but a fraction of the total sum of noises, and that in these days of motor traction the engines of lorries, buses, and taxi-cabs must be held responsible for much of the remainder. The silent motor machine is one of the pressing needs of to-day; and if that is something unattainable scientists could confer a similar boon by inventing a locomotive engine whose propelling force is derived from stored electricity, with the desired result of quite smooth running.

Architects must often have wondered just how much significance attaches to the hackneyed but still influential phrase, "squandering the ratepayers' money." Some authorities (mainly local, but sometimes imperial) seem to think that any kind of building operation, whether conducted economically or otherwise, comes automatically into that bad category. Some help towards assessing an average value for the phrase comes from the eastern counties, although in this instance it had no direct application to building. What was in question was a proposed increase of £10 to the salary of a rural district council clerk bringing it up to the colossal figure of £70 a year. A gentleman (bearing, by the way, the inauspicious name of Shorten) at once entered a protest against "squandering the ratepayers' money"! Nevertheless, the clerk gets his rise, and it is to be hoped that this sudden accession of wealth will not turn his head. On the other hand, we trust that he will not have been overtaken with remorse on a sudden realisation of what is meant by "squandering."

In France they have a shrewd method with negligent architects. One of them has just been sentenced to eight days' imprisonment for "culpable homicide by imprudence," because a building adjoining premises which were being taken down under his instructions collapsed, killing three persons and injuring six others. Moreover, the architect has been ordered to pay 10,000 francs compensation to the injured. The housebreakers who were arraigned with him were



exonerated. It is not likely that he will really spend eight days in prison, the French having a polite way of remitting such sentences, on the ground that the mere nominal conviction is a sufficient burden of indignity and suffering. French architects, however, are held to be legally or morally responsible for almost every misadventure that can happen "on, in, or about" a building; and any one of them who cultivates his "Beaux-Arts" side to the detriment of his structural engineering outlook does so at the imminent deadly risk of being some day condemned to imprisonment for "culpable homicide with imprudence." We are not sure that he does not hold himself morally responsible for strikes and lockouts. Certainly he intervenes in them much more freely than does the British architect, who, we are sometimes tempted to think, might be less chary of the very valuable influence that he could bring to bear in such circumstances. But he very often affects an apathy which he is usually very far from feeling.

### HERE AND THERE.

TO the precise person the word "Georgian" is anathema, not on account of characteristics of style that displease his eye, but because loose phraseology has given the word a meaning that, in his view, is not warranted by the facts. We must appease the precise person. And first let us admit that he is quite right in objecting to the title "Georgian" being applied indiscriminately to work that goes back to the days of William and Mary, and extends on to that later William, the seaman-king, who so delighted in the spectacle at Sadler's Wells Theatre. Speaking by the history book, of course, Georgian architecture is that which was produced during the reigns of the Georges, from the gawky middle-aged George who came over from his beloved Hanover, with his princesses and his clay pipes and his Rhenish wine, to "the first Gentleman of Europe." In point of date, then, from 1714 to 1830. But architectural style does not come and go in accordance with a calendar of kings, and it is necessary to beware of the history book.

In a general way we all know what is meant by a "Georgian" house, though we may differ in our estimate of it. I should not myself say, for instance, as Mr. Statham says, that in the Georgian era the English Renaissance had been reduced to an "austere and rather prim simplicity, when hardly anything of Renaissance architecture was left except the Classical cornice and the symmetrical arrangement of windows"; nor should I approve the aspersions which seem to rely solely on rather stupid references to a box of bricks. But we may take it that the term "Georgian," at any rate, is understood to designate a particular type of work which, chronologically, hovers about the 'sixties and 'seventies and 'eighties of the eighteenth century.

The precise person, however, is insistent, and it is as well to give heed to his clamour. I think that many, after all, would go astray in an examination of general architectural knowledge if they were asked to distinguish between a "Queen Anne" and a "Georgian" house. In reality, they both hail from the days of Dutch William, though the "Queen Anne" house has lingering about it the Carolean element of quaintness in ornament—not quite grotesque, but infused with a little of the untutored craftsman's fancy; whereas the "Georgian" has an air of the stately gentleman—a sort of silk-breeched and cravated architecture as contrasted with one displaying something of the cavalier's rakishness: not proper to the extent of primness, but observing a due regard for the architectural proprieties. Still, we need to remember that both Chippendale and Adam were "Georgians," and there are all the exotic things, like *Chinoiserie* and

*singerie*, to take stock of; and if we are to be sticklers for architectural style as reckoned by the coming and going of kings we shall have to speak of the Athenæum Club as "Georgian"! for it was built in the last year of George IV.'s reign. The precise person, therefore, has not all the rights on his side. And before we leave this subject it may be noted that the title "Georgian" is not confined to work dating from the time of our own four Georges, but also as designating a member of a race of mountaineers of the Caucasus noted for their physical beauty.

Members of Parliament, when they rise at the architects' annual dinner to respond to the toast of the Houses of Parliament, hardly ever fail to make reference to the two great buildings that stand on either side of Westminster Bridge, and they love to draw contrast between them, showering honour on each alike. It is difficult, they say, to decide which is the finer work, Barry's huge pile, rich with ornament almost to the point of exuberance, or Norman Shaw's sturdy block in New Scotland Yard, where the sturdiness of the police finds perfect expression. To my mind, however, there is no difficulty in the matter. The Houses of Parliament have by far the greater merit. We are apt indeed, through the faults of the sugar compiler of guide-books, and the avalanche of picture postcards, to fail in our appreciation of Barry's grand work. It is a superb group, this Classic conception in Gothic garb, whether we survey its great length to the river, or gaze at the dramatic composition that meets the eye from many points of view on the Abbey side. None more dramatic than the view of the beautiful Victoria Tower from the middle of Parliament Square. The Clock Tower, I will readily admit, is a failure; it savours of the German toy. But the group as a whole is magnificent. Norman Shaw's work, in comparison with it, makes a poor show. Not that New Scotland Yard achieves no distinction: on the contrary, when we bear in mind the date of its erection, it is a great achievement; but it suffers sadly under the light of modern criticism. Its stripiness no longer appeals; its Scottish baronial turrets are not approved; its stone "pokers" are freakish; and the great slope of its roof with dormers peering out, smaller and smaller as they approach the ridge, is too reminiscent of the Bavarian prototype and the big week's wash. No, I will admit that Norman Shaw was a considerable architect, a remarkable personality, and a most kindly man, but New Scotland Yard, as an architectural achievement, is far below the Houses of Parliament.

*Après cela le Déluge*; after the Greek the Italian. Do I not hear it whispered that there is another Italian Revival on the way? And who shall gainsay it? These be matters made for us like the fashions of clothes, not because we want them, but for the simple reason that it is to somebody else's benefit to effect change. In the architectural world I suppose the benefit is to take the form of glory. The spirit as yet is but moving on the face of the waters. But soon the new thing will be made manifest, and, perchance, we shall be harking back once more—to Letarouilly or to the Reform Club. Who can tell?

The lady author has alighted on a new idea. She has discovered architectural type in faces. Thus the hero has an uncompromising Norman cast of countenance, the bold, bad villain is stamped with all the characteristics of Jacobean, and the heroine's expression is quite Adamesque. This surely quite eclipses the analogies that have been drawn between Architecture and Music. And as, so it is said, people grow like their dogs, we may expect the lady novelist to go a step further, showing us all manner of canine-architectural combinations.

UBIQUE.



## DEMOLITION OF THE STRAND'S OLDEST BUILDINGS.

ONE by one, the older buildings of London are rapidly disappearing. So ruthless, indeed, are the demands of modern commercialism that no venerable building that happens to occupy a site on a principal thoroughfare can be considered altogether safe from demolition. The latest instance to be recorded is that of the two houses numbered 414 and 415, Strand, which are shown in the accompanying illustration. They stand next to the Adelphi Theatre and immediately opposite the now vacant site of the old Tivoli Music Hall. With their demolition, the Strand loses its oldest buildings. The exact date of their erection is uncertain, but there can be no doubt that they belong to the latter part of the seventeenth century.

The houses are constructed mainly of wood and plaster, and they are thickly covered with paint. The cornice, indeed, is clogged with it; but even now the vigour of the detail is plainly apparent. The niches under the cornice are excellent examples of Stuart craftsmanship; and it is to be hoped that these at least may be saved. They should form a valuable addition to the architectural department of the London Museum.

The two square projecting bays are particularly interesting. It will be noted that, although their proportions are approximately the same, the design of each is quite distinct and individual. In spite of this diversity, however, the two bays group together with an effect of perfect harmony. It is probable that these houses at one time formed part of a larger composition; indeed, if we regard the right-hand bay as a middle unit, and then add on the right-hand side another bay similar to that on the

left, and divided off by a pilaster, we at once have a group of buildings forming a complete and singularly charming composition.

The houses and the shops below were quite recently in occupation; but since a serious outbreak of fire, which occurred a short time ago, and came grievously near to shortening the very brief existence that was due to them, the premises have been deserted, and they now stand with broken windows and charred timbers awaiting the final ravages of the housebreaker. A passageway called "Heathcock Court" runs under the buildings and leads through a series of

tortuous alleys into Maiden Lane and Covent Garden. One has only to wander around in this neighbourhood to get right back into the spirit of the times when the Strand was the haunt of footpads, and when it was considered unsafe to journey from the City to Westminster after dark. The whole region, indeed, is redolent of a mediævalism which is in singular contrast to the noise and bustle of the modern Strand. The paving flags, even, lying in undulating irregularity and worn to a flaky thinness, might well be those that were laid when these old buildings were first erected, and when the Strand could boast a series of noble mansions which included York House (of which a

fragment—the Water Gate—still remains), Northumberland House, Durham House, Salisbury House, Worcester House, and several others, the sites of which are now mainly occupied by giant hotels and modern business offices.

This instance of the Strand houses is only one of many unfortunate demolitions that are contemplated at the present time. Cloth Fair is doomed, and we are told that Boswell's house in Great Queen Street must go. If this rate of destruction continues, London, before long, must become a purely modern city, lacking all the charm and distinction that is given by venerable buildings. It is the bounden duty, therefore, of all who have any affection for the London of the past to do everything that is possible to preserve the fine old buildings that still remain. Comparatively modern work like that of Nash and his contemporaries is being almost regularly demolished, so the need for protecting buildings of greater antiquity becomes even more ap-

parent. The site of the old Strand buildings, it may be mentioned, is to be occupied by offices for the New Zealand Government, for which Messrs. Crickmay and Sons, of Westminster, are the architects.

"I often," said Charles Lamb, "shed tears in the motley Strand, for fulness of joy at so much life." To-day perchance Charles Lamb's bewildered wraith would find fresh cause for tears in the disappearance of all but a round half-dozen of the buildings that made up his own familiar Strand, though it may be doubted whether the "life" to be found there now would bring a "fulness of joy."



Photo: Architects' and Builders' Journal.

OLD BUILDINGS IN THE STRAND ABOUT TO BE DEMOLISHED.



## THE PRIX DE ROME PRIZE DESIGNS IN ARCHITECTURE.

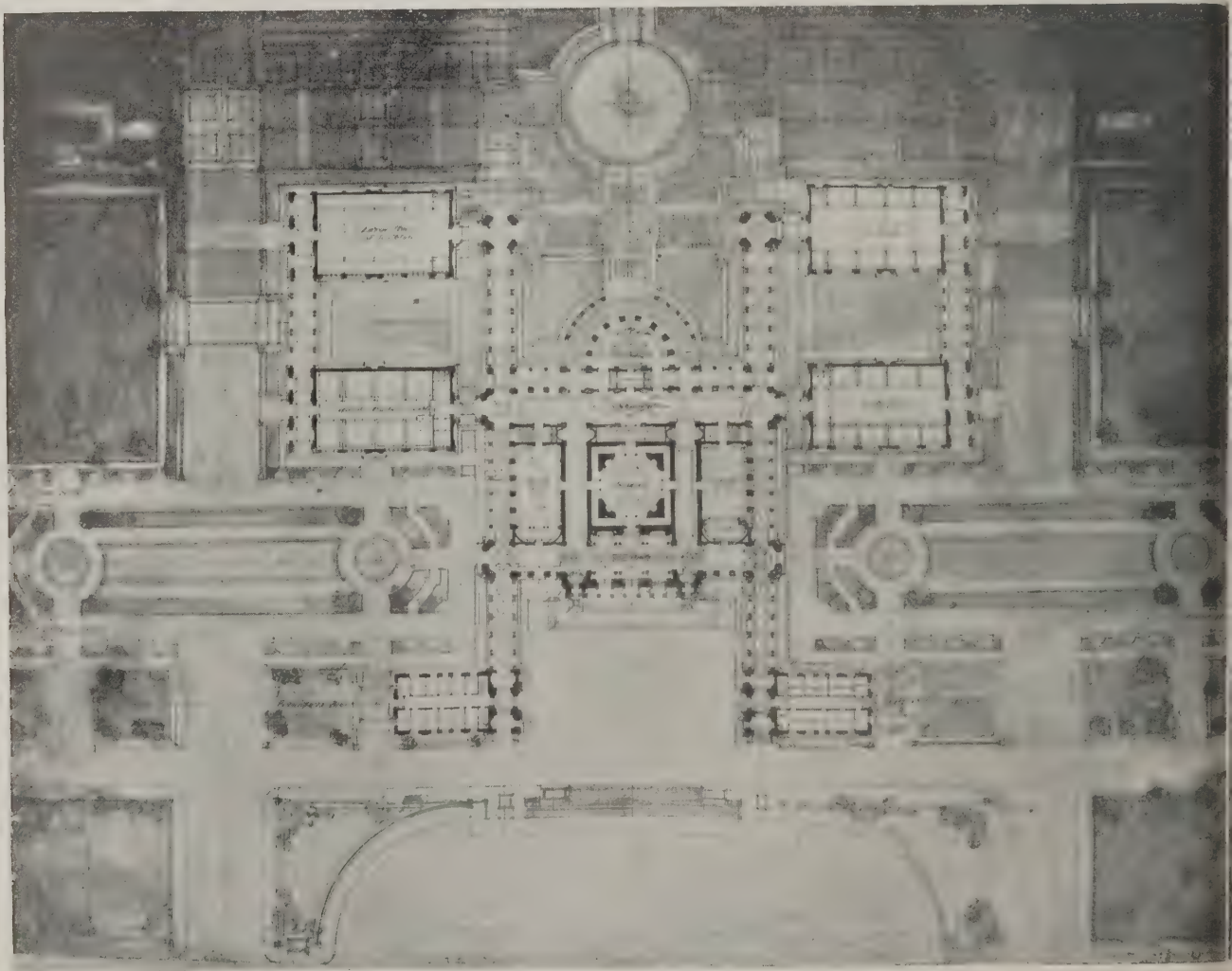
SPECIAL CRITIQUE BY A. E. RICHARDSON, F.R.I.B.A.

THE exhibition of the final designs for the highest prizes awarded to architectural students of British nationality is now open to the public at the re-erected Crosby Hall on the Chelsea Embankment. One naturally expected to find that very keen competition had been the order of the day, and that the advantages of academic training would be demonstrated in the work of every competitor; but after the

first dazzling impression of the exhibition as a whole had passed, and when each of the designs had been subjected to a careful analysis, there ensued a sense of disappointment which refused to be shaken off. This I shall endeavour to explain, but before dissecting any of the designs I propose to deal with certain generalities which are of moment alike to the student and the teacher. The first is draughtsmanship, the art



Side Elevation.



Plan.

THE ROME SCHOLARSHIP IN ARCHITECTURE, 1914: DESIGN FOR A BRITISH SCHOOL AT ROME.

BY PHILIP DALTON HEPWORTH (*Winner: see also Special Plate*).



presenting a scheme in an attractive form. In this minor division of architectural art an almost dangerous facility is apparent, not only in the preliminary sketch designs, which had to be delivered up at the end of the first day of the competition, but in the finished drawings; in two or three instances the competitors allowed their passion for pictorial effect to obscure their reasoning power for logical design. The next thing for consideration is the difficulty experienced by each of the competitors in grasping the true meaning of the subject or interpreting the programme in simple terms of architecture. The weakness shown in every design was lack of right conception. Another item to be mentioned is the lack of attention given to the local character of the city in which it was proposed to erect the design, "A British School at Rome." The authors of the designs placed first and second evidently thought that the purposes of a British School of Architecture at the centre of Italian culture could be best expressed in the debased modern French Classic vocabulary; and they cheerfully arranged an adventitious display of columns, dull attics, and pediments, composed in masses reminiscent of temporary exhibition buildings.

To be brief, the first and second prize designs show a undigested acquaintance with the subtleties of French planning; while the rest of the competitors, so far as planning is concerned, have not yet learnt how to deal with traffic circulation, to focus points of interest, or to dispense with innumerable axes. Rightly considered the problem demanded an easy and simple solution of one main axis, with an exhibition room as the climax to the scheme, and not the library which was favoured. The foremost idea in the minds of the competitors appears to have been to make a brave show on paper; to exaggerate the importance of the subject until it became an unwieldy institution.

There is little to choose between designs Nos. 1 and 2. Perhaps, as regards logical planning, No. 2 is the better. Mr. Hepworth, whose attractive scheme is placed first, appears to have devoted his energy to producing a plan of gigantic complexity. This plan shows him to be conversant with all the French tricks, the directness of circulation, the correct placing of the climax as a focal point, the carefully considered balancing of the architectural attributes, and the garden layout. But the number of axes betrays the complexity of the scheme: the four great studios are, again, the library, as the climax, is given undue importance, while the lengthy corridors on either side connecting the respective quarters of the pensioners and the Director, are merely introduced for the purpose of gaining a parody of a *cour d'honneur*. That Mr. Hepworth experienced a difficulty in adjusting the quasi-domestic character to the architecture of the main building is shown both in the plan and elevation.

The design placed second is by Mr. E. Cormier, who has been awarded the Jarvis Studentship. The plan is almost on identical lines to the winning design. The conception in its magnitude and handling is for a grandiose palace of art, with innumerable terraces, niches for sculpture and panels for frescoes: the sort of place to escape from rather than one in which to pursue quiet educational study. Mr. Cormier, like Mr. Hepworth, failed to envision a simple college in a quiet setting, with the guest quarters respectfully aloof from the main buildings; but he must perforce tightly link the parts together, bind them like the wings of a hospital, offer acres with every possible convenience which long and earnest students would never have time to use, and the upkeep of which would defeat the economical purpose of the institution. Both Mr. Hepworth and Mr. Cormier know the more recent contributions to French planning by heart, but surely it is a mistaken idea to adapt a grandiose scheme to the requirements of a Chaussemiche to the comparatively simple

needs of what is, after all, a small college in a foreign city.

The design No. 3, by Mr. T. Braddock, is unpleasant in conception for a problem of this type. The plan reminds one forcibly of a Roman circus, the college buildings being placed in the centre and the domestic and other quarters forming the outer rampart. Mr. Braddock's architectural detail is poor, and his drawings are very unsympathetic.

No. 4, by Mr. W. M. Keesey, is a plan full of faults, both as regards axial construction and circulation. He, too, has fallen into the error of exaggerating the value of the subject.

The design labelled 6, by Mr. B. A. Miller, is, as far as the planning is concerned, out of the competition, but I have a kind word to say for his Italian phantasy. Mr. Miller has thought of the *genius loci* amidst which he proposed to erect his building. One drawing suggests the Tiber with characteristic argosies; but with such attractions for boating the students would never study. Mr. Miller's knowledge of Italian architecture is reverential; he has a pretty touch, and in time will master the planning obstacles which at present beset his path.

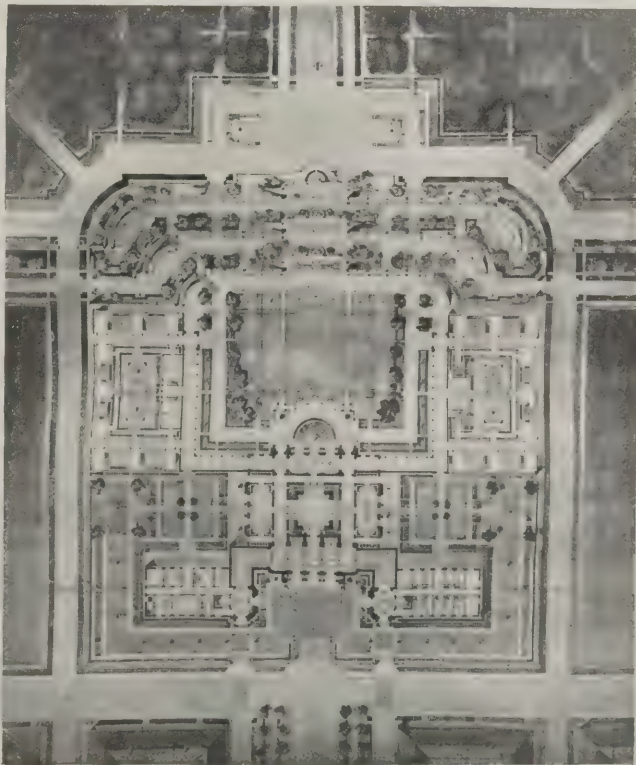
No. 5, by Mr. D. S. MacPhail, shows a straggling plan, and the elevations are mediocre.

The design by Mr. F. Jenkins is conceived in the Italian manner, but the scheme is incomplete and the planning is poor.

Mr. E. R. F. Cole's design shows a laboured plan, but the elevations are attractive and suitable for such a problem. The grouping, however, suggests a mountain hotel in Switzerland rather than a college of art in the Eternal City.

In the foregoing notes I have tried to deal with the designs as fairly as possible, my aim all through being to give helpful constructive criticism. Naturally, with the improved educational facilities now within the reach of every architectural student, one sets a very high standard of attainment. No longer do fine perspectives or well-rendered sheets induce the critic of architecture to give promiscuous applause. Rightness and suitability of conception are the only things that really absorb his attention.

A. E. RICHARDSON.



THE JARVIS STUDENTSHIP, 1914: PLAN OF DESIGN FOR A BRITISH SCHOOL AT ROME. BY ERNEST CORMIER.



## THE PLATES.

*Design for a British School at Rome.*

A CRITICAL estimate of Mr. Philip Dalton Hepworth's prize design for a British School at Rome being given on page 42 by Mr. A. E. Richardson, F.R.I.B.A., further observations upon it would be superfluous in this place.

*Rome Scholarship in Sculpture, 1914: Decorative Panel.*

Mr. Charles Sergeant Jagger's 5 ft. by 3 ft. panel for the mantelpiece of a concert-hall suggests a vinous rather than a musical ecstasy—a bacchanalian orgy rather than a festival of Apollo. The half-inebriated satyr, and the prostrate figure over which the erotic nymph is astride, no less than the quadruped, which is surely one of the pets of Bacchus, all help to confuse the issue; and the faces—though English rather than Greek, all have the right bacchanalian leer. But there is sufficient evidence of music to dissipate one's temporary doubt as to whether or not it was Dionysus rather than Orpheus or Apollo that inspired the theme.

*Asgill House, Richmond, Surrey.*

Designed by Sir Robert Taylor, the architect of Ely House in Dover Street, this grey stone house is a fine example of a small residence treated in a broad and generous manner, and has an air of patrician distinction. Such a feature as an octagonal bay is always an extremely difficult thing to manage in a Classic building, and the solution afforded by this design, in which the bay is the dominant feature of the elevation, embracing some of the principal apartments, is one that might be more frequently followed in modern practice.

*Concert-hall in the Royal Theatre, Berlin.*

Schinkel's concert-hall, with its superabundance of decorative detail, is in strong contrast to the austerity of the interior of the Théâtre des Champs Elysées represented in plate lxx. of the "Current Architecture" series, given in our issue of June 24. And yet the architects of the latter building, Messrs. A. and G. Perret, have been accused of "Germanising"! Schinkel's building is dealt with by Mr. A. Trystan Edwards on page 47.

*Balconies and Balustrades by Cottingham.*

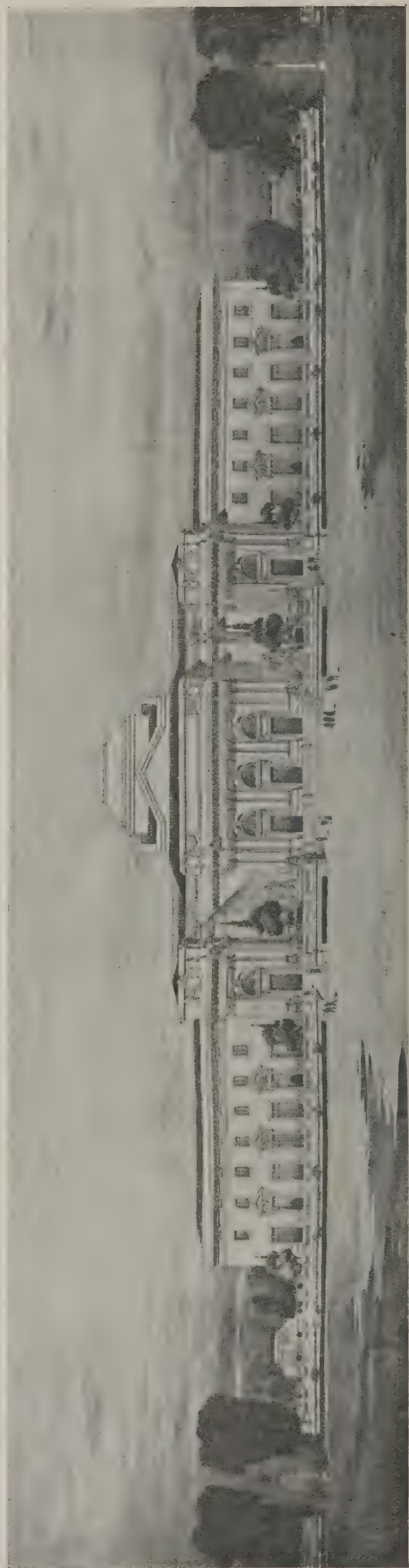
Diversity rather than beauty seems to have been Cottingham's aim in producing this sheet of designs for balconies and balustrades. He has adopted almost every practicable form—the circle, the oval, the diamond, straight line and diagonal, round arch and pointed, flower and fruit, arrow and javelin; but he has used all these forms quite happily, whether he mixes them or employs them independently.

*Practical Chart of Town Planning Procedure.*

Stage 6 of the "Practical Chart of Town Planning Procedure" for schemes prepared by owners, deals with the successive steps to be taken in case the scheme is modified by the Local Government Board. Detailed explanations of the charts were given by the authors in our issues of April 15, page 264, and June 10, page 412.

*Palais de Justice, Brussels.*

Poelaert's masterly building, begun in 1866, and inaugurated October 15, 1883—Belgium's year of jubilee as an independent kingdom—would be impressive by its mere size, as it contains twenty-seven large court-rooms, eight open courts, and more than 240 smaller rooms; while the cross surmounts the dome at the majestic height of some 400 ft. above the pavement level. Joseph Poelaert, the architect, did not live to see the Palais completed, as he died November 3, 1879. He was born at Brussels in 1816.





## MODERN ARCHITECTS:—V. KARL FRIEDRICH SCHINKEL.

SPECIALLY CONTRIBUTED BY A. TRYSTAN EDWARDS, M.A.

KARL FRIEDRICH SCHINKEL was born at Neu Ruppin, in Brandenburg, in 1781. His father was an archdeacon, and a superintendent of schools and churches; his mother came of a celebrated family of *savants*, and was a woman of considerable intellectual capacity. On the death of her husband, at the age of fifty-one, she was left with five children, and migrated to Berlin in order to obtain for them the best educational advantages.

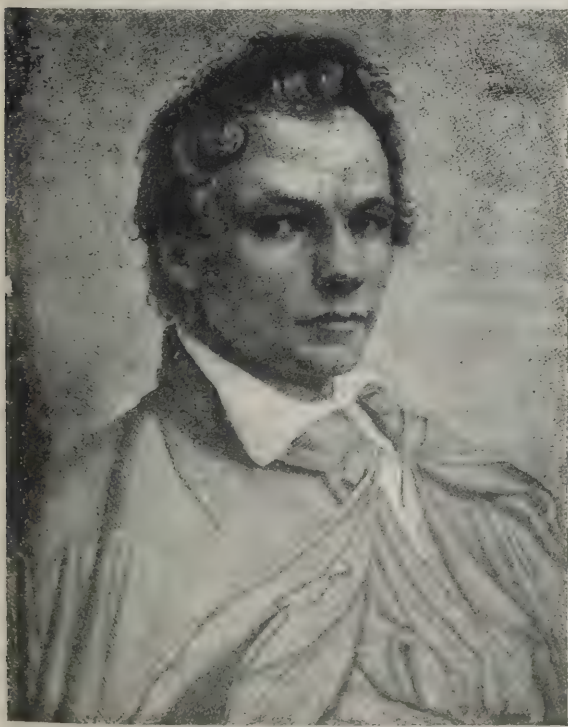
At school Karl, the eldest boy, did not distinguish himself, and showed no predilection for anything except drawing. From his early childhood, however, he had a passion for things theatrical, which in after life he gratified to some extent by designing stage scenery. It was in 1797 that his attention was first directed towards architecture. On seeing at an exhibition an imaginative scheme for a monument to Frederick the Great by Professor Gilly, he was so full of admiration for it that he decided to become Gilly's pupil, and after a year at the Academy of Architecture in Berlin he entered Gilly's office at the age of sixteen.

In 1799 the son, Friedrich, returned from his travels abroad, and imparted to Karl his own enthusiasm for Hellenic art. Unfortunately this friendship came to an end very soon, for two years later Friedrich died. Goethe says that all great men need an inheritance; and in the case of Schinkel this need was supplied, for he succeeded to the practice of Gilly. In fact, he identified himself so entirely with his master that for a time he had the reputation of being an exact facsimile of him. In 1803 Schinkel had earned enough to travel, and he visited the principal cities of Italy. On his return to Berlin, owing to the state of unrest consequent upon the Napoleonic wars (the battle of Austerlitz was fought in that very year), architecture was brought to a standstill, and he was obliged to earn his livelihood by designing metalwork, furniture, china ornaments, and other knick-knacks, and also stage-scenery, for which he had a very great talent. He gave up ten years to

these pursuits, during which period his country suffered a series of appalling humiliations. Frederick William III., King of Prussia, was compelled by the truculent attitude of Napoleon to declare war against the French in 1806, and, being thoroughly worsted at Jena and Auerstädt, had to flee to East Prussia, leaving his kingdom to be overrun and his capital captured. Prussia was diminished by one-half, and deprived of her territories west of the Elbe, and of everything that she had acquired by the partition of Poland. It was not until after Waterloo that Frederick William was re-established in possession of his old dominions, and was able to gratify the architectural ambitions which he had always cherished. And when the reconstruction of Berlin was undertaken Schinkel was given an opportunity of showing his powers. He had already attracted the attention of the Court by his landscape sketches, done during his Italian tour. Some of these were copies of real scenes, while others were imaginative compositions. Exquisitely rendered either in sepia or in pen and ink, these pictures would alone have sufficed to give him a considerable reputation. They show his love of what is spacious and dignified. Unfortunately there is no room here to reproduce any of these landscapes, which are all essentially architectural in character in that the grandeur of the scenery he displays to us is made subordinate to the works of man. One magnificent composition, entitled "A Country Road Leading to an Ancient Roman City," is especially worthy of description. In the foreground some knights are riding upon the immense raised highway, which has a few trees on either side. Behind these we obtain a view of a stately city having for its background a range of mountains. Schinkel's stage scenery also served to remind the inhabitants of Berlin that they had a great architect in their midst. His views of the Temple of Diana at Ephesus, and of the Temple of Apollo, were in the nature of imaginative restorations, and revealed his wonderful grasp of Classic detail, while the Egyptian series for "The Magic Flute" is more remarkable still, for though he did not depart from the main Egyptian archetypes he yet contrived to combine these features into pictorial patterns of great beauty.

Some of his early architectural designs are worthy of consideration. The drawing entitled "An Open Hall Facing the Sea" represents a tall square room having a double row of fluted columns interposed between it and the view. The capitals are a variety of Corinthian, and have deep cylindrical bells decorated with perpendicular strings of foliage and crowned with an egg-and-dart moulding. In the centre of each wall there is a large sculptured panel; the ceiling has rich coffers. A low round table and several arm-chairs designed in the Greek manner complete the picture, which both by its draughtsmanship and subject reminds one of the essays in Classical composition required of students in modern architectural schools.

In 1810 Schinkel prepared a scheme for a mausoleum for Queen Louise of Prussia. He was obliged to make this in the Gothic style, but the structure cannot be considered as highly successful. Retaining all the forms of mediæval ecclesiastical buildings, he decorated them with acanthus leaves and other Greek motifs. In 1815 he designed a fountain to commemorate the War of Liberation; and it was placed in front of the castle at Berlin. A colossal figure of Victory is seated on a circular drum decorated with a sculptured frieze, under which water flows from four protruding basins. The lines of the monument are rendered rather confused by the small figures seated at the feet of the goddess. In the following year he was asked



*Schinkel*





THE ROYAL THEATRE, BERLIN. KARL FRIEDRICH SCHINKEL, ARCHITECT.

to be the author of another Gothic church—a cathedral on the Leipziger-Platz. This building has a spire at one end and an ogee-shaped dome at the other, and bristles with pinnacles. The sides of the dome are broken by gables having rose windows, under which there are hexagonal chapels abutting. The whole effect is a very bad jumble, and one may assume that he was but obeying the behests of his clients.

Schinkel's first important work was the Guard-House at Berlin, erected in 1817. Here we have a

Doric octastyle portico set against a plain background and enclosed within two great pylons. The walls are crowned with a bracketed cornice and parapet. It is noticeable that the triglyphs are dispensed with, and the vertical lines in the frieze are obtained by means of small groups of figures placed over each column. This is a very bold arrangement, but it is perhaps open to the criticism that the figures conflict rather with those in the tympanum. Taking the design itself, there is simplicity about it which almost disarms criticism. No



PALACE OF PRINCE ALBERT OF PRUSSIA, WILHELMSTRASSE, BERLIN.

KARL FRIEDRICH SCHINKEL, ARCHITECT.

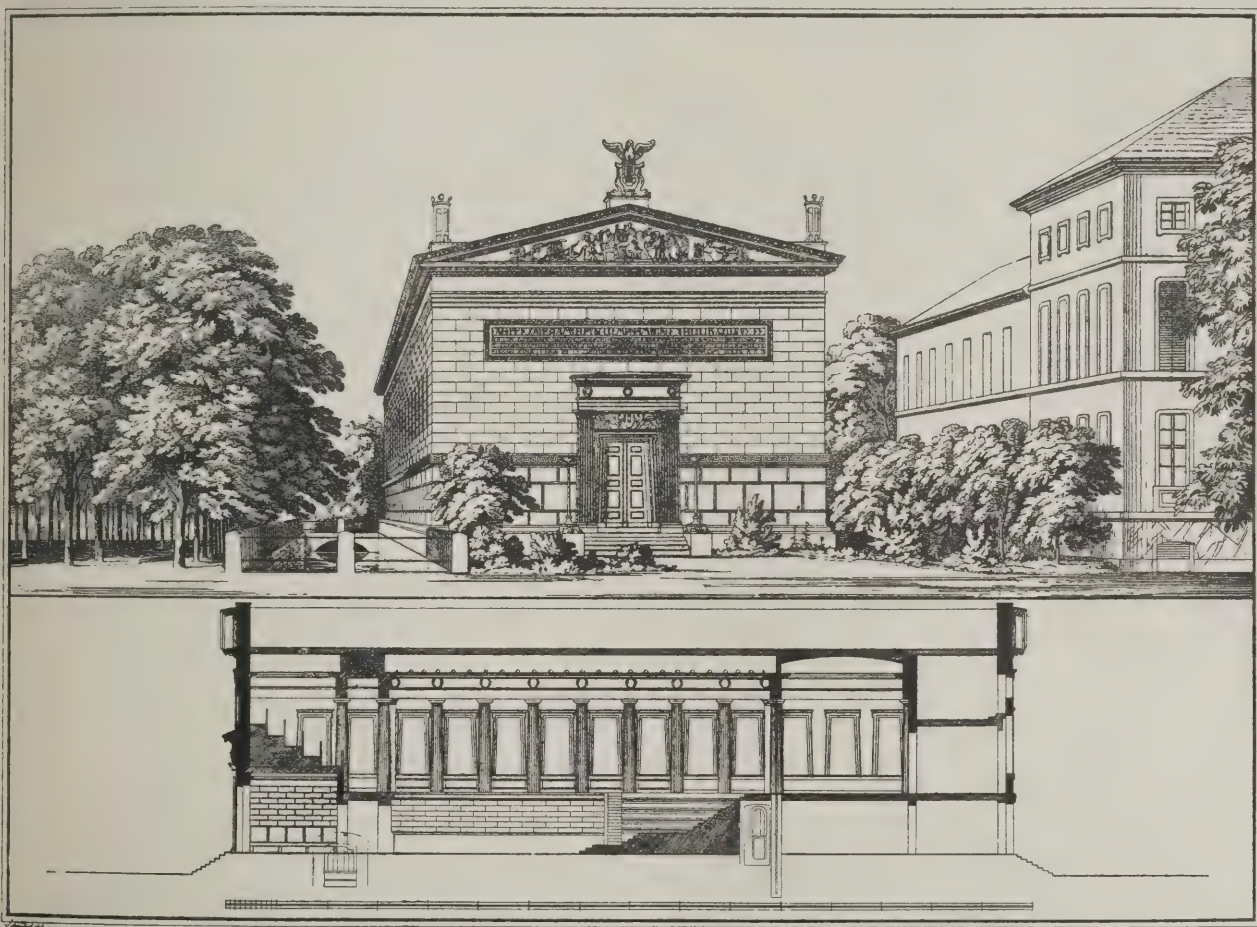


slightest attempt is made to correlate the portico with the pylons or with the rest of the building. The flanks are fenestrated in a manner which utterly ignores the columnar front. The windows are cleverly treated as just holes in the wall, so attention is not directed to them. The part of the pylons in line with the entablature is not accentuated, while the roof of the pediment impinges upon the bracketed cornice. It is obvious that Schinkel has considered the portico, not as an exceedingly complex whole whose several parts must receive recognition in the design of the adjacent structure, but as a single indivisible unit which happens to be wedged between two masses of masonry. This building somewhat resembles Von Klenze's Propylæa at Munich, but is superior to the latter in that in this instance the pylons are subordinate terminal features, and do not constitute an obtrusive duality conflicting with and not sufficiently dominated by the central part of the façade. But there is something

elements balance one another. In the first place, there is the pronounced basement storey, heavily rusticated and sharply differentiated from the rest of the structure by the broad flight of steps bounded by walls which advance from the façade; secondly, there is the columnar part; and, thirdly, the attic. By the elimination of the attic the basement would be made to seem too heavy, and by the elimination of the basement the antagonism between the two pediments would become very much more obtrusive than it is at present.

This planning is not quite "sincere," but by no other means would Schinkel have attained such a large imposing artistic unit. The concert-hall (illustrated in plate xxvi.) is elaborately decorated. It is questionable, however, whether the Ionic columns on the gallery floor should be immediately over the edges of the broad pilasters below them.

The Singing-Academy (built in 1822), of which a perspective and section are given, does not seem to



DESIGN FOR A SINGING ACADEMY, BERLIN. KARL FRIEDRICH SCHINKEL, ARCHITECT.

gracious about the Guard-House. One cannot help feeling that the main part of the fabric has gripped the portico as by a vice, and, so far from condescending to establish an æsthetic relationship with it, finds brutal satisfaction in a propinquity which is maintained by physical force.

The Royal Theatre in Berlin, erected in 1818, is one of the most widely known of Schinkel's works. It is generally criticised on account of the juxtaposition of two pediments one above the other. When seen from the front this arrangement strikes one as a grave fault, not so grave as it seems to be in a geometrical evaluation. In reality the higher pediment occupies very much less space in the picture than does the lower one, and so the competition of interest is slightly mitigated. The fact that the building is longitudinally divisible into three parts must be borne in mind, because one's attitude towards the design is modified by the recognition that to a certain extent these three

represent an advance upon Schinkel's former work. It is an indefensible arrangement that the doorway should cut into the dado in such a crude manner, and that the long panel should have so little relation to the other elements of the façade. The acroterion ornament is a very beautiful one, consisting of a swan with wings outstretched, below which is a lyre supported by two dolphins. The interior is elegantly arranged.

The Palace of Prince Albert of Prussia in the Wilhelmstrasse, Berlin, is a dignified structure. The entrance is approached by two flights of steps, and is marked by a portico of Corinthian columns surmounted by a balustrade. The four statues dominating the skyline are admirably placed. It is a slight blemish in this design that while the fenestration on the flanks is exactly the same as it is on the greater part of the front, the pilasters are suddenly dropped.

(To be continued.)



# CONCRETE AND STEEL SECTION.

(MONTHLY.)

## CONSTRUCTING CARNARVON SEA WALL.

CONTRIBUTED BY H. C. RITCHIE, Assoc.M.Inst.C.E.

A SEA WALL that has been erected at Carnarvon affords an interesting practical example illustrating how the many difficulties encountered in carrying out tidal or under-water work may be obviated by the adoption of reinforced concrete as the material of construction.

The port of Carnarvon, which until recently had been engaged chiefly in the slate export trade, has become an important local centre for the storage and distribution of petroleum and motor spirit.

The rapid development of the import trade consequent upon the ever-increasing demand for oil fuel led the Harbour Trust to consider the advisability of providing additional accommodation to cope with the traffic, which resulted in the adoption of a scheme prepared by their engineer, Mr. William Bowen-Jones, Assoc.M.Inst.C.E. This scheme provided for a 300-ft. extension to an existing masonry sea wall, to afford increased wharfage for oil-tank steamers, and for the reclamation of about two acres of foreshore. The existing heavy masonry structure, 20 ft. high from shore to coping, rested on a foundation 6 ft. below shore level, and it was originally intended to construct the extension in a similar manner.

As the line of this structure follows approximately low-water mark of ordinary tides, it will be readily appreciated that in order to execute the masonry work satisfactorily it would have been necessary to provide a half-tide dam. The expense of this temporary work, combined with the heavy cost of pumping involved in the construction of the lower portion of the wall, led to the abandonment of the masonry design

in favour of a Kahn-system reinforced concrete structure.

The requirements of the reinforced concrete design were to provide a wall which could be constructed with a minimum of interference from the tide and could withstand the full earth load at the back of the wall with the front face unloaded during low tide, and, moreover, could withstand shocks due to wave action without support from the earth filling at the back of the wall, as the intention of the Harbour Trust was to fill in behind the wall with dredgings, a process which would in all probability occupy a long period.

The general character of the design may be inferred from the accompanying illustrations (pages 48 to 50).

It will be noticed that, broadly speaking, the construction consists of an ordinary type of reinforced concrete retaining wall carried on legs of reinforced concrete piles.

That portion of the structure above mean sea level, which could be worked upon for five or six consecutive hours at each tide, is of the design usually adopted for retaining walls. The face slab of the structure has a batter of 1 in 10, and is supported by upright cantilevers spaced at 10-ft. centres, which in turn react upon the base of the wall in the usual manner. This base of the upper portion of the wall is carried upon reinforced concrete piles, two under each cantilever or buttress. One of these is lineable with the face of the wall, and the other is driven vertically and is situated 18 in. from the back edge of the base slab. The lower portion of the face of the wall from the foundation up to the

underside of the base of the superstructure is formed of reinforced concrete sheet piling, which enabled the work below half-tide level to be cast in independent units and driven into position, thereby overcoming the difficulties of tidal interference.

In the design of the work the tensile, compressive, and shearing stresses recommended for steel and concrete in the Second Report, 1912, of the R.I.B.A. Joint Committee, were adopted.

The face slab is 6 in. thick, and is reinforced near both the outer and inner surfaces by a continuous beam to resist the stresses due to the earth filling at the back of the wall at low tide, and also to resist the effect of impact of a 6-ft wave striking the face of the wall at any level from shore to coping prior to the completion of the earth filling at the back of the wall. Inasmuch as the mean sea level at the front and back of the wall is the same at all stages of the tide, allowance was made for the support afforded by still water acting against the inner face.

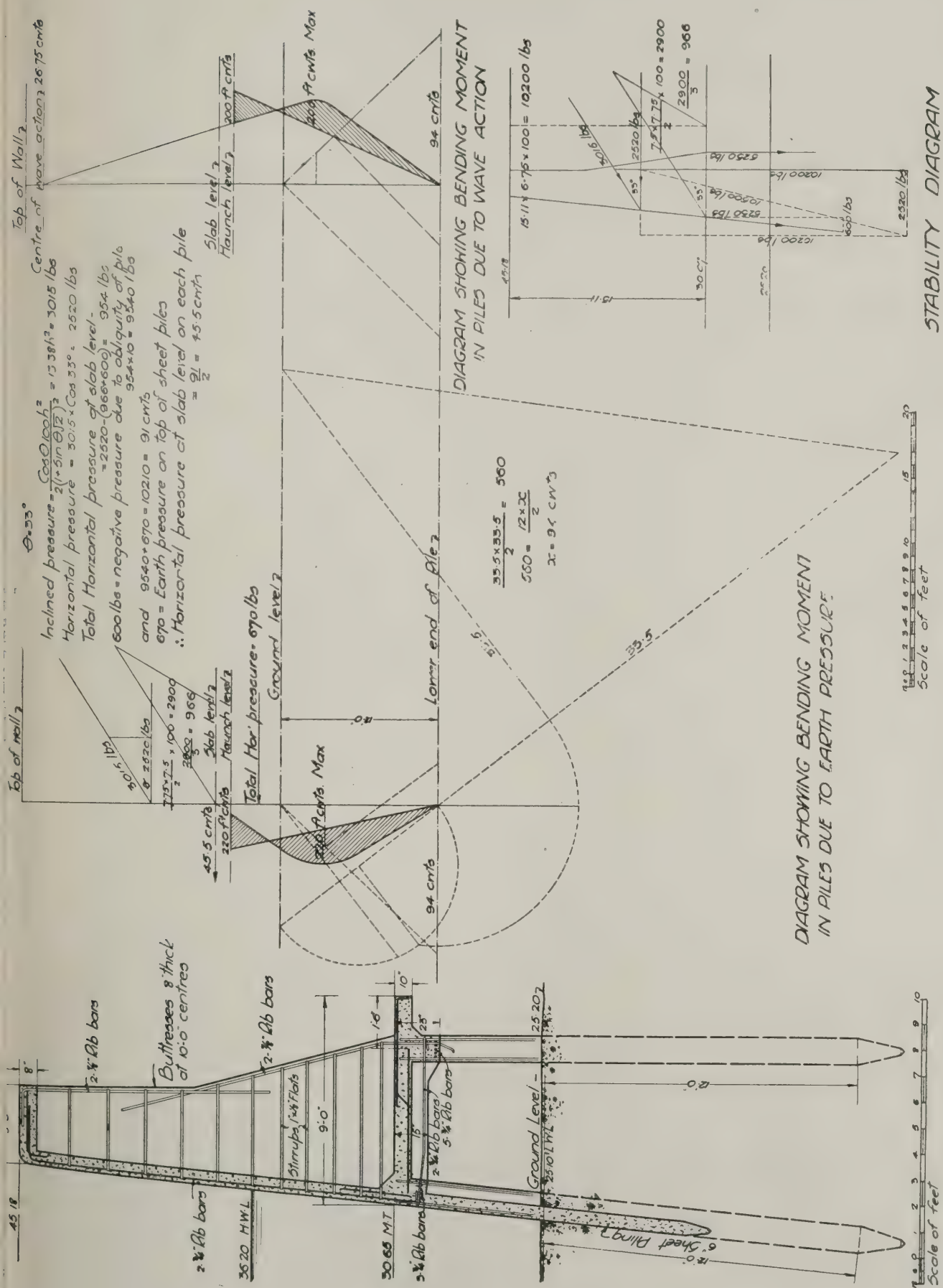
The cantilevers or buttresses which support the face slab are 10 ft. by 8 in. at the base, tapering to 36 in. by 8 in. at the top being designed of that depth under the coping to carry a deck slab 3 ft. wide running the full length of the wall.

The tensile reinforcement at the back of these members, resisting the maximum bending moment due to earth pressure, consists of a group of Kahn rib bars having a total cross sectional area of 2.03 sq. in., and the reinforcement at the face to resist the effect of impact of a wave striking the top 6 ft. of wall consists of Kahn rib bars having 1.12 sq. in. cross



CARNARVON SEA WALL: FRONT VIEW.





### CARNARVON SEA WALL: DIAGRAMS SHOWING BENDING MOMENTS, ETC.



sectional area. The ends of these two groups of tension bars are anchored around the bottom reinforcement of the two longitudinal beams carrying the base slab. This slab is 10 in. thick, and extends as a cantilever 18 in. beyond the centre line of the back longitudinal beam. It is reinforced with  $\frac{3}{4}$ -in. Kahn trussed bars at 13-in. centres on the 7-ft. span between the beams, and with  $\frac{1}{2}$ -in. Kahn rib bars at 10 $\frac{1}{2}$ -in. centres over the back support.

The two parallel longitudinal base beams are reinforced with Kahn bars as continuous beams to transmit the anchorage afforded by earth pressure on the base slab to the cantilevers described above.

The illustration on page 49 shows a stress diagram determining the value, position, and direction of the two alternative resultant thrusts, acting at the base of the superstructure, under the two main conditions of loading already referred to, as well as their resolution into vertical and horizontal forces distributed between the two king piles supporting each buttress. This same illustration shows the determination of the bending moments in the piles due to wave action and to the earth filling. The design of this portion of the work was necessarily complicated, owing to the fact that the piles are treated as vertical continuous beams, and deflect into peculiar shapes under the loading and wave impact.

The sheet piles were 18 in. by 6 in. cross section, with semi-circular grooves running down the sides of the piles, and with a specially designed shoe having a projecting bead to fit into the grooves of the adjoining piles.

It was estimated that a rock foundation would be found at an average depth of 12 ft. below shore level, and therefore the king piles were designed 18 ft. long. The sheet piles were constructed 12 ft. long to allow for a 15-in. connection and a 6 ft. 6 in. drive.

The contract for the execution of the work was signed on May 8, 1913, and the work on the site was commenced on June 8.

The first operation consisted of the casting of the piles. Both the king and sheet

piles were cast as nearly as possible in the order in which they would be required, and driving was commenced nine weeks after the moulding of the first batch. One pile-driver was sufficient to enable the contractor to complete the work within the six months specified time. The pile-driver was carried on an elevated track running parallel to the main line of the piles, the rails of which were approximately at mean tide level.

The work was commenced at that end of the wall which abuts against the masonry structure, and, as anticipated, the hardest driving was there experienced. The first few king piles, nine weeks old, were punished rather severely before they afforded the necessary set, and driving was temporarily suspended for a further three weeks. The damaged heads of the piles were cut off, and when driving was resumed everything progressed satisfactorily owing to the fact that the concrete had then sufficiently matured. The average rate of driving was eight piles per day, and work was commenced on the superstructure when about one-third of the foundation had been completed.

The concrete throughout the whole of the work consisted of Penmaenmawr granite chippings passing through a  $\frac{1}{4}$ -in. screen, Anglesey sand, and British Portland cement mixed in the proportions of 3:1 $\frac{1}{2}$ :1, and the reinforcing steel consisted of Kahn trussed and rib bars.

Illustrations are shown of the front and back views of the completed structure, before the filling operation at the back of the wall had been commenced.

The cost of the reinforced concrete structure was about £2,000. Tenders had originally been received for the construction of this 300 ft. length of wall in masonry, and the lowest offer in this case from contractors was £4,600. This illustrates the marked economy effected by the elimination of the difficulties of under-water construction by the use of reinforced concrete work.

Mr. W. H. Brocklesby, of Birkenhead, was the contractor for the work, which was carried out under the supervision of a clerk of works, instructed by Mr. Wm.

Bowen-Jones, Assoc. M. Inst. C. E., engineer to the Carnarvon Harbour Trust, and by the writer of this article, acting on behalf of the Trussed Concrete Steel Co. Ltd., who were responsible for the preparation of the detailed designs of the reinforced concrete work.

### THE UNIT METHOD OF REINFORCED CONCRETE CONSTRUCTION.

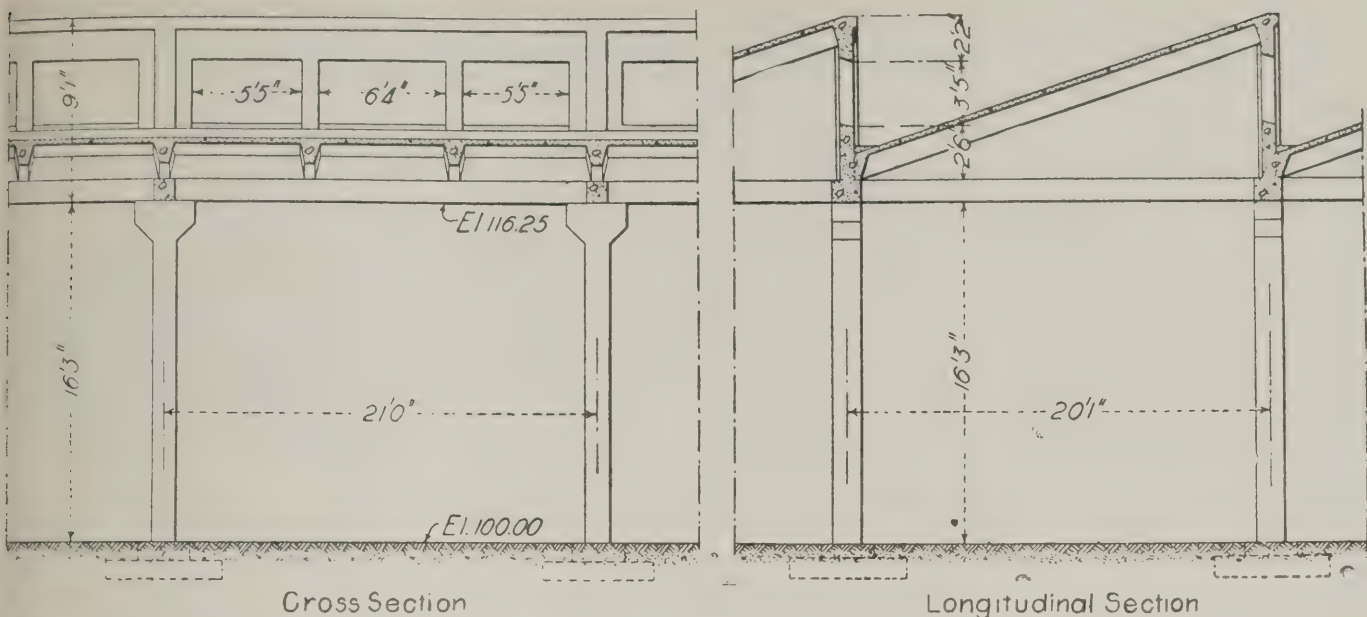
One-storey concrete buildings, covering ten acres, and costing \$300,000, have been erected by the unit method of construction for the Galveston Cotton Compress and Warehouse Co. All columns, girders, and roof-slabs were cast in forms on the ground. The separately moulded pieces were then raised into their proper place in the buildings, and the joints were grouted with rich concrete. Concrete construction was selected primarily to reduce insurance rates on stored cotton. Since the new buildings have been in use the insurance rate has dropped from \$1.78 45 cents per annum, and it is claimed that a saving of \$750,000 has been effected by the use of fireproof construction.

The compress building, containing most of the machinery, and about which the activities of the plant move, is 217 ft. long by 138 ft. wide. The classing shed which extend north and south from the compress, have sawtooth-roof construction throughout, to afford good lighting. The north shed is 486 ft. long by 138 ft. wide and the south one 369 ft. by 138 ft. Sawtooth-roof construction is claimed to be particularly economical with the unit system of building. There are four so-called single warehouses, 180 ft. long by 80 ft. wide, and three double warehouses 185 ft. long by 160 ft. wide. The outer bound shed begins at the compress, and extends east between two of the single warehouses to the unloading sheds at the east end of these warehouses. This outer bound shed is 156 ft. 6 in. wide by 237 ft. long. The unloading shed extends the full length of the plant, and adjoins the



CARNARVON SEA WALL: REAR VIEW.





Cross Section

Longitudinal Section

BUILDING CONSTRUCTED ON THE UNIT PRINCIPLE, GALVESTON, U.S.A.: DIAGRAMS SHOWING SAWTOOTH CONSTRUCTION OF ROOFS.

warehouses. The railroad switch tracks run along this shed, and all the cotton comes in here. It is 1,070 ft. long by 50 ft. wide, and the roof cantilevers over the box cars as they stand on the track.

All these various buildings total approximately 376,900 sq. ft. of floor area, or about 8.7 acres. The total area covered by the plant, including fire lanes, is 425 ft. by 1,070 ft., or 10.5 acres, and provision is made for extensions to the west and south, which will eventually double the capacity of the plant. The cotton is handled by a very elaborate telfer system, which forms an unbroken chain from the unloading shed to the warehouses, from the warehouses to the classing sheds, from the classing sheds to the compress, and from the compress through the outbound shed to the tracks.

One of the construction features was the sawtooth roof over the classing sheds. The vertical frames which form the fronts of the sawtooth were cast in one piece, and acted as the girder to support the roof slabs which form the slope of the sawtooth. One end of a roof-slab rests at the bottom of one frame, while the other end rests on the top of the frame one bay ahead. A tie-beam from column to column makes the construction rigid. Instead of saving windows in the vertical frames, openings were left and later covered on the inside with galvanized woven wire screening.

The exterior walls over the entire job are 8 in. thick. The interior walls are all fire walls 12 in. thick.

The lighting of the buildings is accomplished in a great measure by skylights. These skylights are also made in units. Reinforced concrete ribs are used, and the wire glass rests on these in much the same manner as on a steel rib. The ribs are held at their exterior end by a concrete curb.

Two expansion joints were placed in the classing sheds and in the unloading shed, because these buildings run continuous for 1,070 ft. These joints are parallel to the girders, and were made by putting in two separate girders at the column rows where the joints occur. Steel plates were set on the column heads, and on the bottoms of the girders at their ends between these

plates is a next of steel rollers. These rollers are in a carriage so that they always remain parallel and roll easily, for between girders there is a 2-in. clear space.

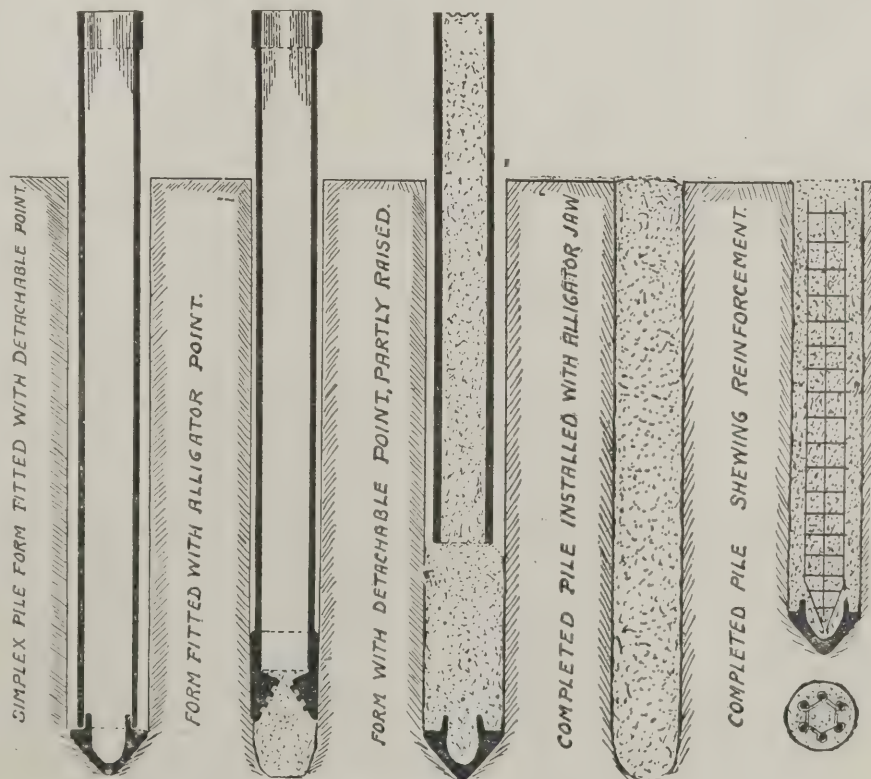
With the unit method of construction it was possible to inspect each structural member before it entered the building, and all defective members were rejected. Since the members were all cast on the ground where the concrete could be well puddled, and all voids filled, the buildings present a very pleasing appearance. Wherever drilling was necessary, the concrete was found to be so dense and hard as to make the drilling extremely difficult.

The work was completed in about seven months. The contract was executed by the Unit Construction Co., of St. Louis.

## TRADE AND CRAFT.

### *The "Simplex" Piling System.*

Improvements in the construction of piles, and in the methods of employing them, have gone far towards the satisfactory solution of the very difficult problems presented by unstable sites that are destined to bear heavy loads. To transmit direct to a firm-bearing stratum the loads to be carried was an enormously expensive business when that object could only be achieved by excavating the whole area down to solid ground. Good piling, however, produces equally reliable results, while effecting a very considerable saving in time and money, and this economy



TYPES OF "SIMPLEX" CONCRETE PILES.



became possible on the introduction of piles constructed of concrete.

Among the more modern types of piles that are now most extensively employed is the "Simplex" concrete pile. The method employed in constructing this pile is clearly seen in the illustration shown on page 51. A steel tube—the "form"—of large diameter (usually 16 in.), the lower end of which is fitted with an enlarged point, is driven into the ground in the usual manner until the required "set" is obtained. When this is reached the tube is filled with freshly mixed concrete, in a plastic condition, a sufficient quantity being inserted to make the pile of the length required. The form is then withdrawn slowly by means of special tackle with which the pile engine is equipped. During the process of withdrawing the form, the concrete issues from its lower end, completely filling the hole made by the tube, and also filling any voids in the sides of the hole should any occur through the displacement of stones or boulders during the driving of the form. In process of setting the concrete cements itself to the surrounding earth, thus developing whatever skin friction the ground may be capable of affording.

The practical advantages claimed for this system are: Considerable saving of time owing to the piles being driven and constructed in virtually the same operation, so that no time is lost in casting piles some months before the actual driving commences, and there is no risk of shattered or cracked piles through driving shock. There is greatly increased skin friction, and consequently increased carrying power, the pile cementing itself to the surrounding earth, thus developing the full compressive strength of the entire volume of the ground around and beneath it. Piles of varying length can be constructed with one pile driver, without the trouble and delay of finding out in advance what length of pile is required. Any form of steel reinforcement can be inserted. The proprietors of this system call special attention to the enlarged point with which these piles are installed, this being about  $1\frac{1}{2}$  in. larger in diameter than the driving form itself. This enlargement expedites materially the placing of the piles, and at the same time ensures that the finished piles shall be of greater circumference than would be the case if points of the same diameter as the form were used.

Messrs. Simplex Concrete Piles, Ltd., of Caxton House, Westminster, have machines of various sizes with which piles can be installed to all practical depths, and their large machines are equipped with driving forms, in one length, suitable for installing piles up to 60 ft. without the use of followers.

An illustrated booklet in which the system is described gives interesting photographic views of its adoption and adaptation to various circumstances of site and soil—as, for instance, in gravel and earth on swampy land for works at Southampton; in shale-filling at South Wales, for South Wales Portland Cement and Lime Co.'s works at Penarth; in filled-in cinder and clinker-rubbish and earth on the bed of an old pond, London; in soft blue clay at Bermondsey; in earth and sandstone filling over river-mud at Birkenhead; and under many other untoward conditions which the "Simplex" system of piling has successfully met. If the example (recently noted in these pages) of the Paris architect who counteracted the vibration from the underground railway by building a large house on piles is extended, "Simplex" piles may find a widened field of utility.

#### *Floor-Finishing by Electric Machine.*

Much more attention is given now than formerly to the finishing, as well as to the formation, of floors, and the demand for a perfect surface has brought into being various means of achieving this result. The Electric Floor Machine Co., Ltd., 118, City Road, E.C., who specialise in all classes of floor-finishing work for the trade, have demonstrated to a representative of this Journal the extraordinary speed and efficiency of their new model electric floor machine, of which an illustration is here given. Its rotary action ensures a perfectly smooth and level finish, removing all toolmarks or other inequalities, and producing a beautifully even surface. All kinds of floors can be dealt with, whether they are of wood or of composition, plain or of parquetry, stone or marble, and the machine is adaptable to all classes of work—to the surfacing, grinding, or polishing of new floors, or the entire refinishing of those that are old and worn. Various attachments for dealing with particular circumstances are instantly interchangeable as required. Brushes, carborundum



ELECTRIC ROTARY FLOOR FINISHING MACHINE.

holders, steel shaving holders, sandpaper discs, etc., can be attached to the machine with the greatest facility, in accordance with the nature of the work to be done—scrubbing, sanding, waxing, and polishing all being undertaken with equal success. Bench handles can be supplied, making the machine suitable for workshop use as a portable sandpapering or grinding machine. A small motor is contained in the machine, which can be operated from a lampholder or wall-plug by means of a flexible cable attached to the handle. It is stated that with this machine an ordinary operator can produce the following amount of first-class work, the figures relating to square feet per hour: Scrubbing, 3,000; sandpapering, 250; polishing, 2,000. Obviously these figures imply economy as well as speed, and it is easy to perceive the advantages the machine offers for the treatment of large areas of flooring, as in ball-rooms, municipal buildings, hotels, hospitals, and factories, whether for finishing or for scrubbing. The firm have established a well-organised contract department, which undertakes all the work for which the machine is so well adapted, and contracts for periodical polishing can be arranged. Work of the kind has been or is being executed for many large institutions, such as the Army and Navy Stores; Messrs. Lever Bros., Port Sunlight; Longton Town Hall, Bexley Asylum, Westminster Infirmary, Queen's Highcliffe Hotel, etc.

#### *An Improved Padlock.*

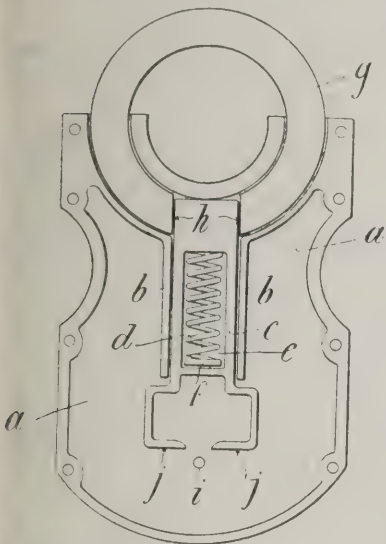
Increased strength throughout is not the most important feature of the padlock of which an illustration is here given; even more valuable is the ingenious arrangement by which the chief fault of the ordinary padlock is eliminated. That fault is, that the ordinary padlock may appear to be locked when it is not. With the new padlock, this deceptive appearance is impossible. You can tell at a glance whether or not it is locked by noticing whether or not the key is in it, for the key cannot be withdrawn until the padlock is secure. A casing *a* is provided with parallel guide-ways *b* formed conveniently integral therewith so as to carry a sliding bolt *c* held in the normal or locked position, by pressure of a helical spring *d* housed within a recessed part *e* of the bolt *c*, against one end of which the spring bears, an abutment *f* for the spring also serving to limit the travel of the bolt. The outer solid portion of the bolt *c* extends as shown across



PILES EXPOSED FOR CAPPING ON SITE OF MESSRS. SPICER BROTHERS' NEW PREMISES, BLACKFRIARS, LONDON.



the pathway of a guided annular link *g*, whose continuity is interrupted at *h* so as to form a gap into which the outer end of the bolt *c* shoots automatically when the gap is brought into register with it by rotation of the link *g* in the act of locking the device. In unfastening the padlock, by rotation of the link *g*, the spring-



LAMB'S PATENT PADLOCK: SECTION.

operated bolt *c* is withdrawn from the gap, the key turning about the pivot *i* and engaging one or other of the lugs *j*. Locks of the common type may be opened with a key, but with the new lock this is impossible. Locks other than padlocks may be constructed upon this principle, the invention of which is Mr. George Hunt Lamb, 5, Vicarage Lane, Stratford, London, E.

#### A Compact and Dainty Colour Wallet.

Messrs. Robert Ingham Clark and Co., Ltd., Caxton House, Westminster, are suing an ingeniously devised colour wallet in which samples of their "Pearline" enamel can be either conveniently displayed or compactly stored. It is placed in one's hand, the wallet, of which the dimensions are no more than 2½ in. by 1 in., presents the dainty and elegant appearance of a small prayer-book, with a spring-button fastener, upon releasing which a leather strip—about 1 in. long by less than 4 in. wide—is unfolded, revealing ten sets of tablets. Each set of tablets—there are three to the set—occupies a division of the strip, and the three are eyeletted together in such a way that only one tint at a time need be seen, the whole number of thirty, or any combination of any of the units, can be brought into juxtaposition. The folds in the strip enable the user to cover up the colours he wishes to exclude from his scheme, or to bring together any two or more units of the series. It may thus be seen instantly what colours agree and harmonise, or the reverse, and the dainty little wallet is therefore of real service in the arrangement of a scheme of decoration. Each colour is numbered for identification, and the corresponding numbers are printed opposite the name of the colour in a list printed inside the wallet and facing the specimens. "Pearline" is described as "the highest quality of enamel," and the thirty samples of it illustrated in the wallet show a wide range of exceedingly beautiful tints, each with an enamel finish that is surely the acme of brilliancy.

## SPECIAL LEGAL REPORTS.

### Workmen's Compensation Act.

#### *Chilton v. Blair and Co., Ltd.*

June 10. Court of Appeal. Before the Master of the Rolls and Lords Justices Swinfen Eady and Pickford.

This was an appeal by Robert Chilton, of St. Ann's Hill, Portrack, Stockton-on-Tees, from an award of Judge Templer, of the Stockton-on-Tees County Court, under the Workmen's Compensation Act, 1897 and 1906, in a claim for compensation for injuries made by Chilton against the respondents, engineers and ironfounders, of Stockton.

Mr. Mortimer appeared for the appellant and said the appeal was from an order dismissing a claim for 7s. a week compensation. Chilton was employed as an apprentice, and on August 14, whilst engaged in rolling iron for ventilators, he sat down on a guard, in disobedience to an express prohibition, and one of his feet was so badly crushed that he would be a cripple all his life. The County Court judge had held that he was not entitled to compensation, on the ground that the accident did not arise out of his employment. Counsel contended that this was an entire misconception of the result of the previous legal decisions. All that could be said against appellant was that he was doing the thing he was engaged to do in a way he had been ordered not to do.

Mr. Bairstow, K.C., for respondents, submitted that the accident would not have occurred had this lad not sat down on the guard in disobedience to orders. He sat down for his own purpose and not in furtherance of his duty to his employers.

After the legal arguments the Court reserved its judgment.

### A "Tenants' Fixtures" Dispute.

#### *Hamilton v. Beddington and Others.*

June 18. King's Bench Division. Before Mr. Justice Shearman.

Mr. John McLure Hamilton, at one time tenant of 12, Grove End Road, St. John's Wood, sued the defendants, the landlords of the premises, to recover certain articles which he said were tenants' fixtures, or, in the alternative, their value, £1,500.

Mr. J. B. Matthews and Mr. R. Goddard appeared for the plaintiff, and Mr. Hohler, K.C., and Mr. E. Fox represented the defendants.

Mr. Matthews stated that his client was an artist, and the property in dispute in the action was of great value to him in his profession. It consisted largely of wainscoting and panelling of fine design, and of ornamental mantelpieces, together with some Dutch tiles of considerable value. All were easily removable, and had been put in by a former tenant. The plaintiff claimed to be entitled to remove them, and intended to do so before the end of his tenancy. The defendants, however, claimed under the terms of the lease to be the owners of these fixtures, and threatened if any attempt was made to remove them they would take proceedings by way of injunction or otherwise. The plaintiff in consequence abstained from removing the property, but did not abandon his rights. As he had been prevented from removing it by threats of legal proceedings, he contended that his claim to the property was not defeated by the fact that it had not been removed before the expiration of the term.

Evidence having been given in support of the plaintiff's case,

His Lordship gave judgment for defen-

dants with costs, holding that the plaintiff was not right in his construction of the terms of the covenant of the lease, and that being so, plaintiff had lost no right by failing to remove the fixtures before the end of the tenancy.

## COMPETITIONS.

### *Municipal Buildings, Dudley.*

Dudley Town Council have decided to invite competitive designs from architects within a radius of 150 miles for a new town hall, municipal buildings, and police station. Premiums of £50, £30, and £20 respectively are offered for the designs selected by the assessor, who is to be appointed on the nomination of the R.I.B.A.

According to the conditions of competition, the total cost of the buildings, which is to include drainage, heating, ventilation, water, lighting, and sanitary appliances, architects' and quantity surveyors' fees, and lithographic charges, but exclusive of the cost of internal fittings and furniture, must not exceed the sum of £35,000.

It is proposed to pull down the present buildings, and to proceed with the erection of police quarters first. The other parts of the scheme will be proceeded with in the course of four or five years. The police scheme includes a residence for an inspector, but not for the chief superintendent, or a recreation room for men. Four cells for male prisoners and two for female prisoners are required, each of which is to contain 600 cubic ft., while in the single officers' quarters accommodation is to be provided for sixteen beds. The present residence of the chief superintendent is not to be pulled down, but to be used as part of the accommodation.

In the municipal buildings provision has to be made for the Education Department and for the coroner and his officers, while the Town Hall is to accommodate 150 people.

### *City Improvement, Glasgow.*

Glasgow Corporation are inviting competitive designs for (1) business premises to be erected on a site shortly to be cleared at the corner of Trongate and High Street; (2) a scheme for the retention of the Tolbooth steeple on the corner of the present site; and (3) a market cross. Premiums of £50, £30, and £25 will be awarded. Designs, which will be assessed by the President of Glasgow Institute of Architects, in conjunction with Mr. McDonald, the City Engineer, have to be sent in to the Town Clerk by September 18, 1914.

### *Police Buildings and Fire Station, St. Helens.*

Designs are invited by the Corporation of St. Helens for police buildings and fire station. Premiums of £100, £50, and £25 will be awarded. Lithographed plans of the site and the existing town hall, and copy of conditions, may be obtained on application to Mr. Arthur W. Bradley, M.Inst.C.E., Borough Engineer, St. Helens, on deposit of £1 1s. A professional assessor is to be appointed. Drawings are to be sent in by October 31.

### *Cottages, Chapel-en-le-Frith.*

Chapel-en-le-Frith Rural District Council invite architects to submit plans in competition for cottages. Premiums of £10 10s., £5 5s., and £2 2s., are offered. Applications for conditions should be made to the Clerk to the Rural District Council, Chapel-en-le-Frith, Stockport. Designs have to be sent in by July 24.



*Hospital Extension, Willesden.*

Willesden Cottage Hospital Council propose to extend their hospital at a cost of £12,000. Competitive designs are to be invited from architects, and premiums of £50 and £25 will be awarded.

*School, Hendon.*

Hendon Education Committee have selected designs submitted for the above competition in the following order: 1st, Mr. A. H. Fitzgerald, Tynemouth; 2nd, Mr. H. E. Gulliver, Sutton Coldfield; 3rd, Mr. F. E. Taylor, Kingston-on-Thames.

*Housing Scheme, Bolton-on-Deane.*

Bolton-on-Deane U.D.C. have confirmed the awards made by the assessor (Mr. Charles Hadfield, of Sheffield) in the above competition, which are as follows: 1st (£50 and appointment), Mr. G. F. Pennington, Pontefract and Castleford; 2nd (£50), Messrs. Matley and Mills, Manchester; 3rd (£25), Messrs. Franklin and Deacon, Luton.

*Technical Schools and Educational Offices, Southport.*

The Education Committee of the County Borough of Southport are inviting designs from architects practising in the United Kingdom for technical schools and educational offices. Mr. Paul Waterhouse, F.R.I.B.A., is the assessor. Particulars can be obtained by sending a deposit of 5s. to Mr. J. Ernest Jarratt, Town Clerk, Town Hall, Southport.

## THE BUILDING TRADE CRISIS.

Sectional settlement of the dispute in the London building trade is gradually nearing completion. The stonemasons, the engine and crane drivers, and the wood-cutting machinists have agreed to terms of peace, and joint conferences between the employers and the representatives of other unions—those of the bricklayers, carpenters, plasterers, and labourers—are still in progress. It may be supposed that something depends upon the turn of events with respect to the strike at Woolwich Arsenal—that is, upon the findings of the court of enquiry appointed to examine and report upon the causes of the dispute, which, it will be remembered, arose upon the dismissal of a workman who had refused to assist in erecting machinery upon a concrete bed prepared by non-unionist labour. As Mr. Asquith said in the House of Commons, "The men left their work without notice and without representing their grievances through the proper channels"—conduct exactly similar to that which led directly to the London lock-out.

Several London builders who are not members of the employers' Association have held a meeting, at which it was announced that letters had been received from 225 firms (employing 10,000 men), expressing willingness to assist the L.M.B.A. to terminate the present unsatisfactory position. This means, possibly, that the unorganised employers would be willing to lock out their men with the object of enforcing or expediting a settlement. A further meeting, at which representatives of the L.M.B.A. were invited to be present, was arranged to take place yesterday (Tuesday).

At Marylebone Police-court, Mr. Paul Taylor, in fining a man 40s. for using insulting words and behaviour near the site of the new Marylebone Town Hall, said it was of great importance that men should know the limits of peaceful picketing,

which did not permit of the use of the words "muck-shifters," "scabs," and "blacklegs."

## "WHO'S WHO IN ARCHITECTURE."

"Who's Who in Architecture," published by the proprietors of this Journal, is now ready, and may be obtained, price 10s. 6d., from the Publisher, Technical Journals, Ltd., Caxton House, Westminster. It contains over 300 pages of biographical and other matter, and should be found of very considerable interest and value, not only to architects themselves, but to all who are in any way concerned with architecture and the building trade. A full notice of the book will appear next week.

## NEWS ITEMS.

*Change of Address.*

Mr. Albert E. Bullock, A.R.I.B.A., architect and surveyor (late of 43, Chancery Lane, W.C.), announces his removal to Brownlow House, 50-51, High Holborn. Telephone: Holborn 44.

*Hammersmith Town Hall Extension.*

As a part of a £20,000 scheme for the extension of the Town Hall premises to accommodate the official staff of the Hammersmith Borough Council, it is proposed to erect a one-storey building for the time being at an estimated cost of £6,000.

*Widening of Leadenhall Street.*

At a meeting of the London City Corporation last week sums amounting to £37,000 were voted for acquiring interests in property required for the widening of Leadenhall Street. A plan for disposal of the surplus land by public auction or private treaty was also approved.

*London County and Westminster Bank Dividend.*

It is officially announced that the directors of the London County and Westminster Bank, Ltd., have declared an interim dividend of 10½ per cent. for the half year ending June 30. The dividend, 10s. 7½d. per share, less income tax, will be payable on August 1.

*Appointment of County Surveyor and Architect, Durham.*

For the post of County Architect and Surveyor for Durham there were forty-four applications, and Mr. A. E. Brooks, County Surveyor of Cornwall, was appointed, at a salary commencing at £800 and rising to £1,000. No superannuation allowance is attached to the office.

*Rising Cost of Building.*

Ayr Town Council, as we have already mentioned, are holding an enquiry into the housing question. One of the witnesses said he was building houses for the Ayrshire County Council, for which the accepted tender was £195, while architects' fees would increase the price by about £20 more. He built houses of the same class nine or ten years ago for £120. Both labour and material had gone up.

*London Guildhall Improvements.*

The Court of Common Council have decided to proceed at once with Section "A" of the Guildhall Improvement scheme, and, on its completion, with Section "B." Section "A" is to cost £68,000, and Section "B" £32,000. There is a third section, "C," forming part of the scheme, which is estimated to cost £30,000,

and this is already in hand. Section "A" deals with the block of buildings to the east of the porch. The existing buildings will be demolished and a new block erected. It will provide new law courts, six new art galleries, and improved offices. Section "B" relates to the west side, a new courts and offices will be provided. Section "C" is concerned with the committee-room accommodation.

*The Royal Visit to Scotland.*

Their Majesties had a very busy time with buildings in Scotland last week. Perth Infirmary, which was formally opened by the King, contains eight wards of twelve beds each, and accommodates in all 146 patients (Mr. James Millar, A.R.S.A. F.R.I.B.A., architect). Glasgow's City Hall extension, in John Street, of which the King laid the foundation stone, is estimated to cost about £170,000. Glasgow Royal Infirmary, which has been rebuilt at a total cost of £500,000, was opened by the King with a golden key. The architect, Mr. James Miller, had the advantage of consultation, as to technical requirements, with Sir Henry C. Burdett and Dr. D. Mackintosh. With a golden key, also, His Majesty opened the Royal Hospital for Sick Children at Yorkhill, Glasgow, which has been erected at a cost of £140,000. In the case of Dundee's new City Hall, the King and Queen laid the foundation stones by electrical connection from the works of Sir James Caird. The hall will seat 3,500.

*The R.I.B.A. New Charter.*

Owing to pressure on our space, we are compelled to hold over much interesting correspondence, which includes a letter from Messrs. F. Houlton Wrench and Francis A. Winder, whose circular is referred to in our editorial columns, and who "particularly ask all Licentiates to defend resignation" from the Institute—a course that, they state, has been suggested in numerous cases—"until the actual form of the charter has been decided upon by the Council." A letter criticising the circular is also in type.

At a general meeting of the members of the Royal Institute of the Architects, Ireland, the President, Mr. R. Caulfield Orpen, R.H.A., in the chair, the following resolution was passed: "In view of the recent attitude of the R.I.B.A., in relation to its proposed Charter and the subject of representation which the proposal involve, this meeting would urge the Council of the R.I.A.I. to take action in obtaining for this Institute permanent and adequate representation on the Council of the R.I.B.A., and to consider the propriety of supporting the principle that every member of the R.I.B.A. should be entitled to register his vote on all questions of architectural policy without personal attendance at the London meeting."

*"The Boom in the London Building Trade."*

With reference to the article on the above subject, which appeared in last week's issue, we are asked to point out that the new premises for the General Electric Company now being built in Kingsway are from the designs of Messrs. George and T. S. Vickery, not Mr. George S. Vickery, as stated. In spite of the building dispute, which is now drawing to a close, very fair progress has been made with the new buildings, a substantial amount of the heavy basement work having been completed. Steelwork is now being erected in the basement.



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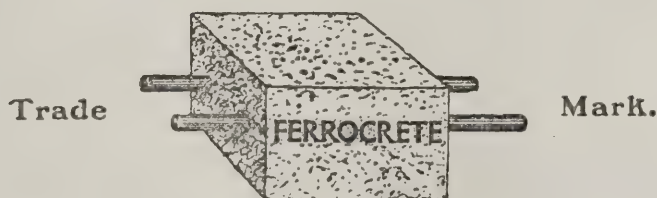
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## PROJECTED NEW WORKS.

*Houses, Jarrow.*

The Jarrow Council have instructed their surveyor to prepare plans and estimates for three, four, and five-roomed houses in Raglan Street and Coquet Street.

*Post Office and Cinema, Buckie.*

The Buckie Town Council have approved plans for a picture palace in East Church Street for the Lyceum Company and for the erection of post-office buildings at Nos. 46 and 48, East Church Street.

*Bridge Widening, Surrey.*

The Surrey County Council have decided to widen Plains Hill Bridge, on the Portsmouth Road at Cobham, at a cost of £5,500, and Windows Bridge, at Long Ditton, at a cost of £2,500.

*Infants' School, Swindon.*

The Swindon Education Committee have recommended the Council to apply to the Local Government Board for sanction to borrow £6,500 for the erection and equipment of the proposed new infants' school to be built on the Ferndale Road School site.

*West-End Theatre, London.*

Plans for a new theatre close to St. Martin's Lane and facing the Ambassadors Theatre in West Street have been submitted to the London County Council for approval. It will be called "The St. Martin's Theatre," and will have a 70 ft. frontage to West Street, and will accommodate about 750 persons. Mr. W. G. R. Sprague is the architect, and has designed the auditorium in the Georgian style, and a notable feature will be a large dome of opalescent glass.

*Extension of Hospital, Motherwell.*

The Motherwell Town Council have resolved upon a large extension of their hospital in order to deal adequately with consumptive cases, and have passed plans of a new pavilion giving accommodation for 20 additional beds at an estimated cost of £4,500.

*Municipal Buildings, Norwich.*

A Local Government Board enquiry has been held at Norwich into the application of the Corporation to borrow £12,800 for the extension of the municipal offices on the site of the old fish market. The Rate-payers' Association favoured the adoption of an alternative scheme to cost only £1,700.

*Nottingham, River Improvement.*

The Nottingham City Council have adopted a scheme, estimated to cost £150,000, for making the River Trent navigable for big craft between Newark and Nottingham. The scheme involves the construction of three new locks. A committee has been appointed to consider details.

*Police Court, Newark.*

A Local Government Board enquiry has been held at Newark into an application by the Town Council for sanction to a loan of £2,105 for the purchase of the Duke of Cumberland Inn, the Teapot Shop, and butcher's shop in Middle Gate for the enlargement of the town hall and the provision of a new police-court and municipal offices.

*Father Kerr Memorial, Wimbledon.*

The design for the new memorial altar to Father Kerr has been decided upon.

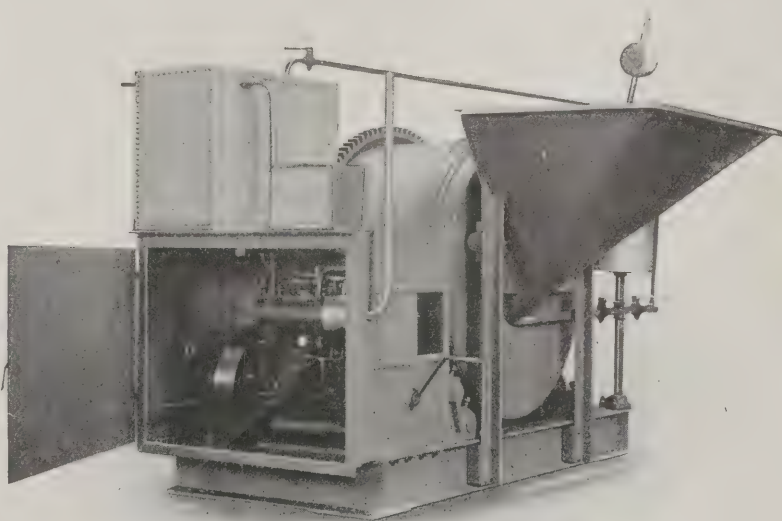
The members of the committee unanimously chose the plan sent in by Mr. George Drysdale, A.R.I.B.A., of the firm of Messrs. Drysdale and Alwyn, of 5, Jol Street, Adelphi. Mr. Drysdale is now engaged upon finishing the detail of design, preparatory to placing the work in the hands of the builder.

*Conveniences, Bournemouth.*

A Local Government Board enquiry has been held at Bournemouth into the application of the Council to borrow £1,911 for the purpose of the erection of public conveniences in the Palmerston Road, Bournemouth, in the Fisherman's Walk Pleasure Grounds, and at the corner of King's Road and Charminster Road, adjoining the Richmond Hotel.

*Liverpool Docks Improvement.*

Sir H. R. Robertson presided at a meeting of the Mersey Docks and Harbour Board recently, when a recommendation of the Works Committee was approved for the erection of a treble storey shed 150 ft. wide on the south quay of the Gladstone Dock No. 1 with the necessary cranes, and to provide a double line of rails on the dock side of the shed at a total estimated cost of £226,500. The Works Committee submitted further recommendations for the acceptance of tenders to provide additional railway sidings at the east end of the Nelson Dock at a cost of £900, and to provide lines of rails at the shed on the north side of the Langton Dock at a cost of £1,950. The former was approved, and the consideration of the latter was postponed to the next meeting in conformity with the standing orders.



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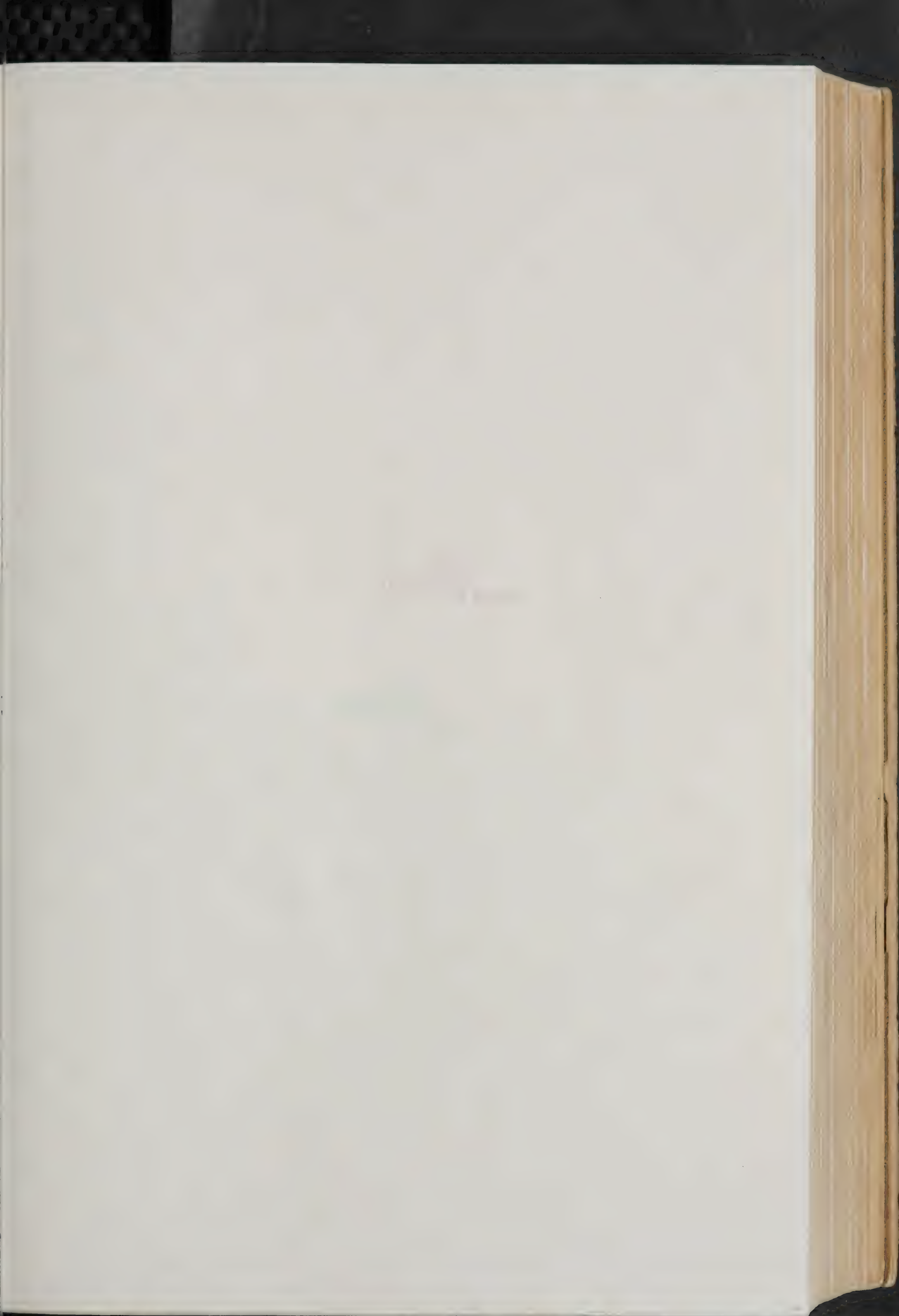
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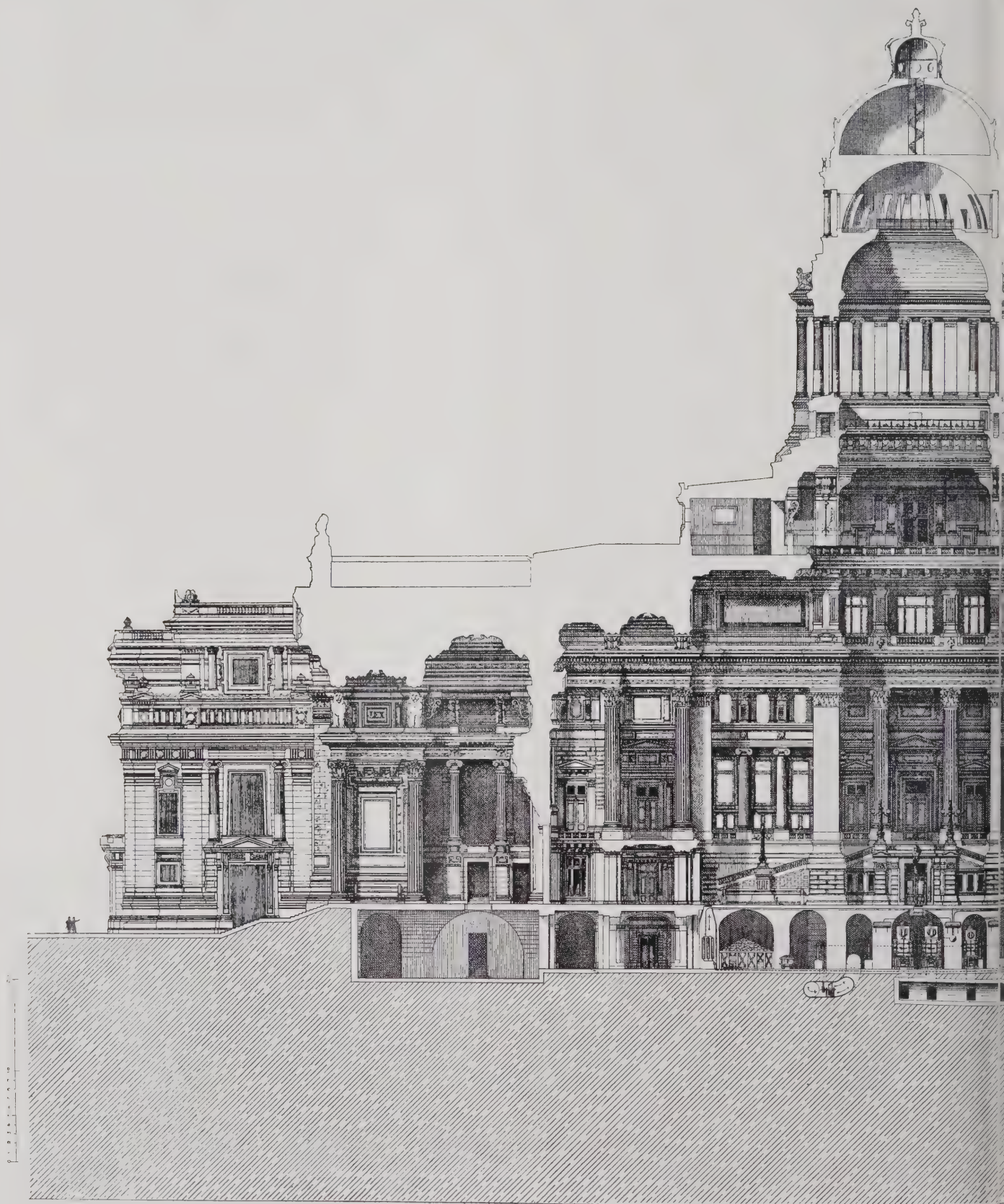
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THE PALAIS DE JUSTICE, BR

J. POELAER





VI.—CROSS-SECTION.  
TECT.









SMALL HOUSES OF THE LATE GEORGIAN PERIOD. XVIII. - ASCILL HOUSE, RICHMOND, SURREY.









Front Elevation.



Perspective (Rear).

STUDENTS' DRAWINGS. XXIII.—THE ROME SCHOLARSHIP IN ARCHITECTURE, 1914: DESIGN FOR A BRITISH SCHOOL AT ROME.

BY PHILIP DALTON HEPWORTH (*Winner*).









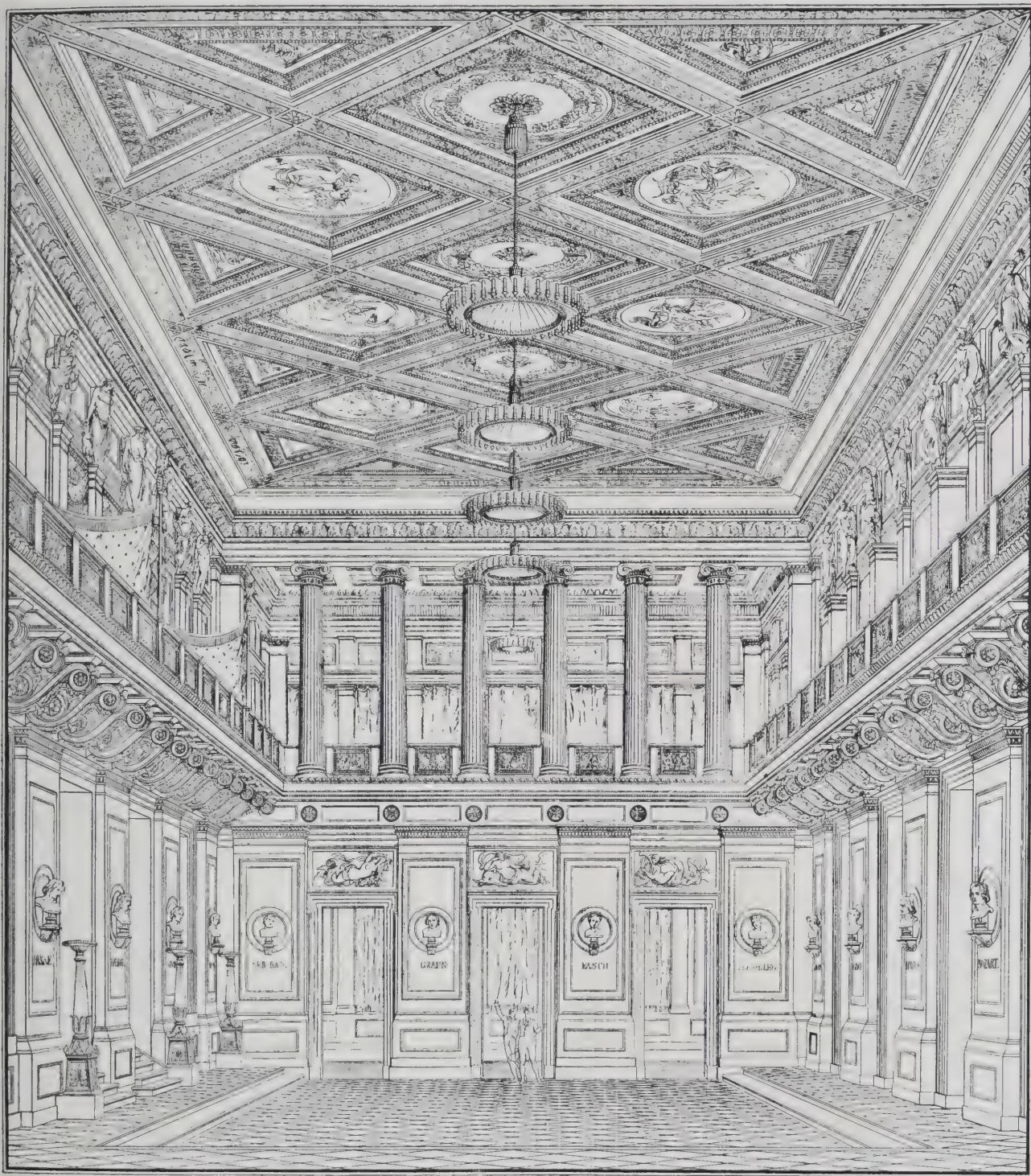
STUDENTS' WORK. XXIV.—THE ROME SCHOLARSHIP IN SCULPTURE, 1914: DECORATIVE PANEL.

BY CHARLES SERGEANT JAGGER (*Winner*).









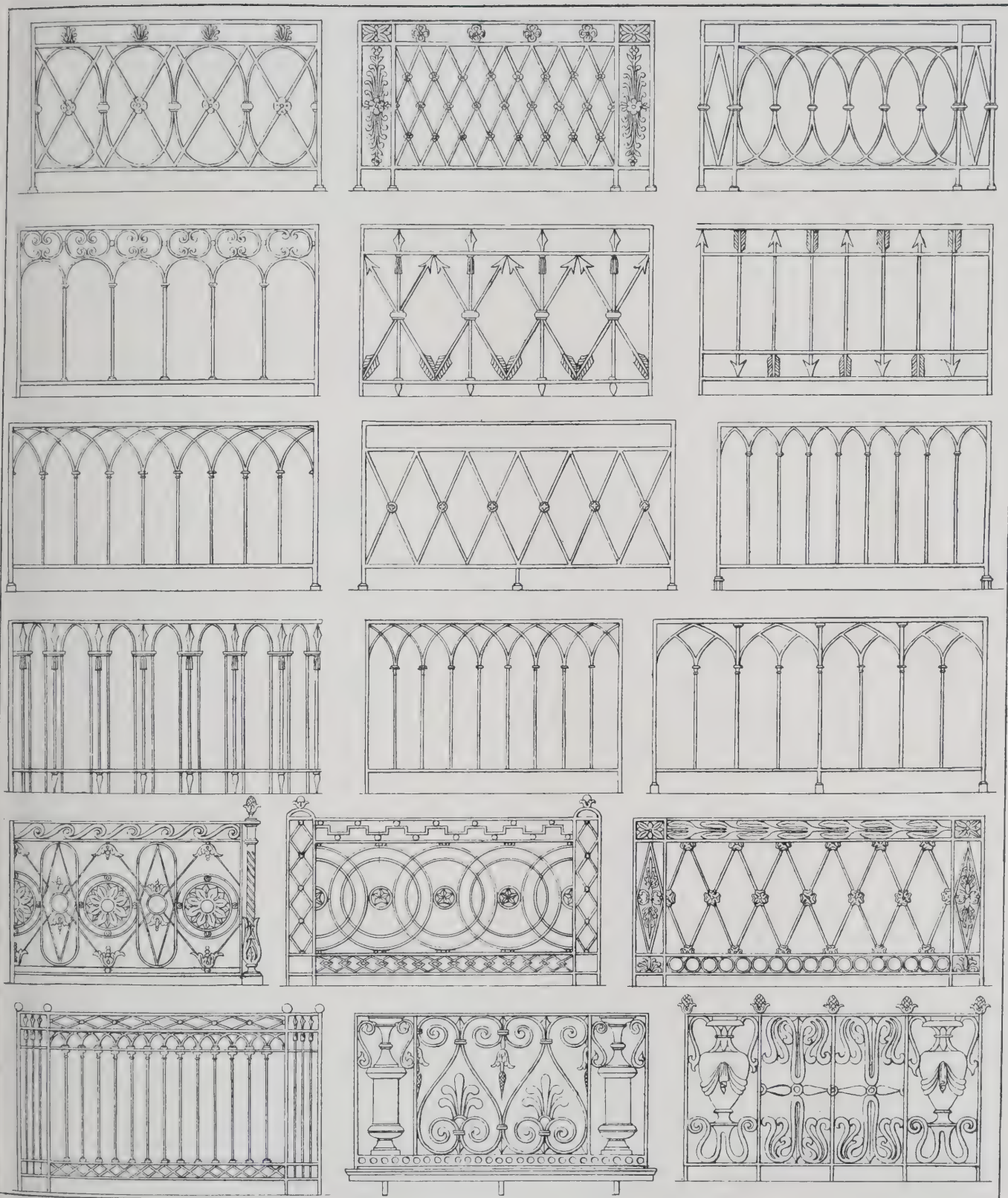
MONUMENTAL ARCHITECTURE. XXVI.—CONCERT HALL IN THE ROYAL THEATRE, BERLIN.

KARL FRIEDRICH SCHINKEL, ARCHITECT.









COTTINGHAM'S DESIGNS FOR IRONWORK. XVIII. -BALCONIES AND BALUSTRADES.







Showing the Detailed Steps of the Various Stages in the Promotion of such Schemes in Accordance with the Town Planning Procedure Regulations (England and Wales), 1910.  
Compiled by R. IVESON DENHAM, Assistant Solicitor to the Corporation of Huddersfield, and L. ST. G. WILKINSON, M.Sc., A.M.I.C.E., an Assistant Engineer to the Corporation of Huddersfield.

ABBREVIATIONS.—L.A. = Local Authority. L.G.B. = Local Government Board. C.C. = County Council. Article or Art. = The Articles of the Town Planning Procedure Regulations (England and Wales), 1910. Act of 1909 = The Housing, Town Planning, &c., Act, 1909. Scheme = An Owner's Scheme proposed to be Adopted by an L.A. under the Act of 1909. Authorities for the various Steps appear in Square Brackets and Cross References to the various Columns appear in Round Brackets

| No. and Nature of Stage.                  | Resolutions of L.A.<br>Column 2.                                                                                                                                                                                                                                                                                                                                        | Notices and Advertisements.<br>Column 3.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Meetings and Conferences. |                             | Maps and Documents Deposited for Public Inspection<br>Column 5.                                                                                                                                                                                                                                  | Information to be Furnished to L.G.B. by Clerk to L.A. |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Action by L.G.B.                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|-------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|-----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                           |                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Nature.<br>Column 4A.     | How Summoned.<br>Column 4B. |                                                                                                                                                                                                                                                                                                  | Prepared by Surveyor.<br>Column 6A.                    | Prepared by Clerk to L.A.<br>Column 6B.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| STAGE 6.<br>In case L.G.B. modify scheme. | If Draft Order received from L.G.B. contains modifications Resolution to be passed by L.A. within ONE MONTH of receipt of Draft Order authorising submission to L.G.B. of any objections or representations by L.A. in regard to L.G.B.'s modifications and conditions Planning Committee's action in taking steps under Article xxiv. (a) and (b).<br>[Art. xxiv. (c)] | (a) Within FOURTEEN DAYS from receipt of Draft Order from L.G.B. serve copy of Draft Order and Notice required under Art. xxiv. (a) upon Owners, Lessees, and Occupiers, and other interested Councils; also upon C.C., if any main road affected.<br>[Art. xxiv. (a)]<br>(b) Send copies of above Draft Order and Notice, where necessary, to (1) Board of Agriculture and Fisheries; (2) Commissioners of Works.<br>[Art. xxviii.]<br>(c) Within FOURTEEN DAYS from receipt of Draft Order from L.G.B. advertise in Local Paper that Draft Order approving scheme with modifications is deposited for inspection.<br>[Art. xxiv. (b)] |                           |                             | For ONE MONTH from date of Advertisement deposit Draft Order approving scheme with modifications for free explanation and inspection by any person or society interested who must make objections to or representations upon modifications to L.G.B. within the said period.<br>[Art. xxiv. (b)] |                                                        | Within ONE MONTH of receipt of Draft Order approving scheme with modifications from L.G.B. send<br>(a) L.A.'s objections or representations made in regard to modifications.<br>(b) Statutory declaration containing information required by Art. xxxi. and exhibits in proof of compliance with the requirements of Art. xxiv. The exhibits required are (1) Copy of Form of Notice served under Art. xxiv. (a) (see Stage 6, Col. 3 (a)); (2) Copy of paper containing Advertisement (see Stage 6, Col. 3 (c)).<br>[Arts. xxiv. and xxxi.] | If L.A. unreasonably refuse to consent to L.G.B.'s modifications or conditions, L.G.B. may, after holding a Local Public Inquiry, order L.A. to consent to such modifications or conditions, which order may be enforced by mandamus. [Sect. 61 (1) and (3) Act of 1909]<br>(a) L.G.B. decide to approve scheme with or without such modifications or conditions.<br>[Art. xxv.]<br>(b) L.G.B. notify L.A. of such decision and send to L.A. a Draft Order approving scheme<br>[Art. xxv.] |

CHART OF TOWN PLANNING PROCEDURE FOR OWNERS' SCHEMES, TO BE ADOPTED BY LOCAL AUTHORITIES—STAGE 6.







THE  
ARCHITECTS' & BUILDERS'  
JOURNAL.

Wednesday, July 22, 1914.

Volume XL. No. 1020.

No. 94.



(From Piranesi.)



# THE ARCHITECTS' & BUILDERS' JOURNAL.

JULY 22, 1914.

CAXTON HOUSE, WESTMINSTER.

VOLUME 40. No. 1020.

## EDITORIAL.

OUR American cousins have always shown a generous disposition not merely to take away, but also to deposit, substantial mementoes of their very welcome visits to the Old Country. We have recently had the pleasure of recording their intention to erect in London a church in celebration of a hundred years of peace between their country and ours; and it is now to be noted that application is being made for a faculty to place a bust of Abraham Lincoln in the parish church of Hingham, Norfolk. It is to be a copy of the Volk bust, and is to bear this inscription: "In this parish for many generations lived the Lincolns, ancestors of the American Abraham Lincoln. To him, greatest of that lineage, many citizens of the United States have erected this memorial in the hope that for all ages between that land and this land and all lands there shall be malice toward none, with charity for all." One could almost wish that the nobility of the aspiration were not transcended by the manifest futility of its extreme comprehensiveness; but there can be no doubt that graceful acts like these tend strongly towards confirming and intensifying the cordial relations between the great English-speaking "lands," and there is but little reason to fear that the faculty will be withheld. This, it will be remembered, will not be the first memorial to Lincoln to be erected in these islands. There is rather a fine monument to him in the old Calton burying-ground in Edinburgh—a bronze statue on a base of Aberdeen granite, standing near the remarkable round tomb of David Hume.

Perhaps the supposed attempt to destroy Rosslyn Chapel was not intended seriously. Happily it had no serious effect beyond the alarm caused by a midnight explosion of a charge of gunpowder that had been rammed into a metal tube which was found, together with Suffragist "literature," outside the fine old chapel. One would gladly assume that a midnight scare was the only object desired, were it not for the plain malignancy of the long series of outrages—many of them disastrously successful—upon venerable and sacred buildings. Rosslyn Chapel, which was founded in 1446 by William St. Clair, Earl of Orkney and Roslin, is so beautiful, as well as so venerable, that one would have thought it absolutely safe from wanton outrage by anyone free from the taint of criminal lunacy. The florid Gothic of its choir is little short of marvellous in its exuberance, the arches being decorated in thirteen diverse ways; while one of the columns is so curiously carved as to have won for itself the title and attracted to itself the legend of "the Prentice's Pillar." While the master builder was abroad, searching for some exquisite model, the apprentice conceived and wrought a pillar of consummate beauty, and the master, mad with envy, fell upon

him and slew him. You shall find the villain's effigy among the carvings in the nave. It is sometimes ingeniously argued that the story is the more credible from the fact that it is related of half a dozen other works of art in as many different countries, and that therefore the slaying of too-clever apprentices by jealous masters was quite a common incident in the Mediæval atelier!

The Dublin Civic Exhibition was duly opened on July 15 in Linenhall Buildings. It will remain open till the end of August, that is to say, for more than half of the holiday season, so that there will be every opportunity for inspection by visitors from every country. Unluckily, judging by a letter contributed to the Press by Lady Aberdeen, there appears to be some apprehension lest the Irish political crisis should spoil its chances of success. Should this happen it would be a thousand pities. Apart from the plea that the Dublin Exhibition is the first of its kind to be held in the United Kingdom, and therefore deserves recognition due to all pioneers, it contains features of exceptional attractiveness to all who are interested in the movement towards civic betterment. The designs for the re-planning of Dublin itself, submitted for a £500 prize offered by Lord Aberdeen, are on view, and from all accounts the historical section is particularly well equipped.

The success of the Civic Exhibition at Dublin will be an immense stimulus to the promotion of similar events in other British centres. At present, so far as we have heard, only Liverpool and Edinburgh are projecting anything of the kind. This is regrettable, because the replanning of towns is going on widely and vigorously, and a civic exhibition is undoubtedly a most serviceable preliminary to such operations, marshals under one roof, so to speak, the evidences of the most recent developments in the art and science of town-planning, and arouses that public interest which is so indispensable to the complete success of the scheme. Its value has been fully recognised on the Continent. During the last five years we can recall at least as many highly successful civic exhibitions as those of Düsseldorf, Berlin, Cologne, Leipzig, and Munich. Here it is symptomatic of English hesitancy or apathy in such matters that we have waited for the Irish capital to give us a lead.

The recently issued Report of the Heights Buildings Commission, New York, is a very general document compared with the almost ferocious building enactments of our own legislators. It suggests that the height of buildings should be twice the width of the street, but such limit must in no case be less than 100 ft., or more than 300 ft. After the limit, however, the building may be carried higher by setting



reet walls 1 ft. back for each additional 4 ft. in height. In other words, a building can, if it likes, grow taller at the expense of its depth. A cornice must not project more than 5 ft., etc. The rights and privileges of owners of existing buildings are of course carefully safeguarded. There is nothing very original or experimental in these recommendations, but they suggest that in the States, as here, the dwellers in large cities are becoming more and more insistent in their demands for sun and air. Again, the authorities will shortly have to face another problem, that of the congestion in the streets lined with huge business premises employing thousands of hands, and besieged by tens of thousands of customers. We know what our own Piccadilly, at the Circus end, can be like on a afternoon in the season; and the scale of the American business house has long since overtopped that of ours.

The annual function at the Architectural Association school last Friday afternoon was the occasion of some remarkable speeches by Mr. Baker, of South Africa, who gave away the prizes, and by Mr. Curtis Green, the ex-President. A new policy has recently been inaugurated by the Council of the Association; a special attempt is being made to find recruits for the architectural profession among boys who have been educated at the great Public Schools of England. We have never expressed any sympathy with those critics, or the most part biassed and ignorant, who are accustomed to assail these famous institutions. The Public Schools inherit great traditions, and, so far from being inefficient or effete, are still the nursery of splendid talents. The Association, therefore, is doing a service in inducing head-masters to point out the advantages of an architectural career to such of their pupils who have not yet chosen a profession.

It is to be hoped, however, that a certain card dealt round to students at the Association will not have the effect of damping the ardour of the school authorities or institutions architectural. The card in question is entitled "Registrar's Message and Souvenir—The Public School Boys of To-day Will Be England's Gentlemen To-morrow." It must be confessed that the wording is a little unhappy. If the Registrar thought it necessary to give advice he might have told the students in the grand old pedagogic way that by reason of the material advantages which Public School boys enjoy, it was especially incumbent upon them to conduct themselves like gentlemen or he could have adopted the motto of the oldest public school (and of the architect thereof) that "Manners makyth man"; or, better still, he might have been silent. It is unfortunate that the crude banality of this message was reflected in the tone of the speeches delivered. Mr. Baker was moved at the close of his oration to exhort his hearers to remember that they were "the gentlemanly architects of the future," and Mr. Curtis Green as pleased to inform us that they of the Association were "very young and very exclusive." Let us hope that the students will not be unduly influenced by the sentiments just quoted, or else the Battle of the Styles will be still further complicated. Besides the classic and Gothic, there will be Tailors' and Cutters' architecture!

Boswell's house, comprising Nos. 55 and 56, Great Queen Street, is threatened with demolition by the Freemasons, who have apparently turned a deaf ear to the very influential appeal for its preservation that was addressed to them recently. Boswell's, perhaps, is merely a reflected glory, but the house that bears his name is a good deal older than Boswell. Its period is clearly that of Inigo Jones, and some boldly say that it was designed by the master, basing their opposition on the pilaster and flat wooden cornice

treatment of the façade. In 1618 Inigo Jones served as architect on a Royal Commission for the Improvement of Lincoln's Inn Fields, so there is nothing improbable in the theory that he designed the Great Queen Street house. Lindsay House, the fine Palladian mansion in Lincoln's Inn Fields, was undoubtedly his design, and the architectural affinity between this and Boswell's house is sufficiently marked to lend colour to the supposition that the latter is also an authentic example.

However this may be, the house in Great Queen Street is incontestably a very interesting example of Inigo Jones's time and Classic manner. With a shop occupying the ground floor of No. 55, the gap in the corresponding quarter of No. 56 created by the open entrance to business premises in the rear, and with a pronounced settlement at the latter extremity, it looks a trifle dilapidated. The Corinthian pilasters, too, in the case of No. 56, have been shorn of half their width, with a considerable loss of symmetry to the whole façade. Restoration, however, would be an easy matter when so many of the principal features are intact. There are now, alas, very few houses of this type left in London, and one can confidently say that, commercialised as this façade, with its far-projecting eaves, has been, there is nothing as beautiful in Great Queen Street. The quietude of its severe and simple Classic is a silent reproach to the florid exuberance of the modern Freemasons' Hall hard by, which is possibly one reason why—but we forbear to speculate.

That steady decay in the sense of humour which has, within the past decade or so, set in among us with all the devastating effects of dry-rot, is mitigated to some slight extent by the unconscious humour which is its natural consequence. If a swift perception of incongruity or ambiguity is of the essence of humour, it follows that failure to detect ambiguity may often give rise to accidental humour. For example, "Portsmouth has always suffered from the inconvenience of having only one road out of the town, and the new thoroughfare will prove a great boon." Apparently the writer did not perceive that this might be construed by the froward as an insinuation that Portsmouth is "a good place to get away from." Again, Prince Arthur of Connaught, having opened ceremonially the new lock at Newport (Mon.), "then disembarked and inspected a guard of honour and the new pumping-house and power-station." Whether these items were taken separately or heterogeneously is not clear; the writer's fine economy of words rather suggesting a similar economy of effort in the inspection. Portsmouth's new road will be, or should be, exemplary of the new spirit of town-planning, for it is to "afford an avenue 80 ft. wide, fringed with trees for four and a half miles to the boundary of the borough, and thence will be continued by the Hants county authorities to Portsdown Hill," and it is to cost £200,000.

After all, it looks as if a great part of the Duke of Bedford's Covent Garden Estate were going to remain for the present in the possession of the Duke of Bedford. Six months or so ago Mr. Harry Mallaby-Deeley bought the entire estate for so many million pounds; this, at least, was the tale, and it seemed definite and circumstantial enough. But recently there was a startling development; Mr. Mallaby-Deeley had cleared out, said the gossips; and Sir Joseph Beecham had stepped in. This, again, was circumstantial—and wrong. It appears that Sir Joseph is not buying the whole estate, but only the Covent Garden Theatre, in which he takes a fatherly interest, and certain surrounding lands; and at the same time he is prepared to act in "a commercial-philanthropic capacity" for the benefit of those tenants who wish to purchase their own freeholds, but



cannot afford to do so. The Duke of Bedford seemingly is also anxious to give his tenants a leg-up, so Sir Joseph was obviously the man for this purpose. The tenants should certainly score. But this pleasant reflection hardly brings us nearer to solving the mystery of who has really bought up whom in this truly remarkable deal, and what precisely is going to be done with the estate.

### HERE AND THERE.

THE note on the title "Georgian" in last week's issue may appropriately be supplemented by a little comment on the modern interpretation of the style. Years ago those in the van of a new movement said, "Let's do Georgian; it's frightfully easy," and down to the present day they have had followers of the same way of thinking. But it is only necessary to look round at the achievements in order to realise most uncomfortably that "someone has blundered," and that Georgian is not "frightfully easy": as a fact, it is full of subtleties that, misapprehended, lead on to failure. I can recall only a very few architects who possess the faculty of producing a Georgian type of building which is worthy of the source whence they derive their inspiration. Messrs. Detmar Blow and Billerey I would certainly include in this category, and, despite his freaks and whimsicalities, Mr. Lutyens as well. And as certainly I would exclude some other men who have been extensively Georgian, but have missed in every case the essence of the style. Their greatest fault has been in attempting to improve upon the model, to add a touch of individuality that has done all the mischief. After all, a fancy for drawing, a casual pupilage under an indifferent master, a glut of cheap house building—these are not the elements that can be set against the traditional possessions of the eighteenth-century architect. The want of a sense of good proportion is the prevailing fault. The doorway is too big or too wide, the cornice far too heavy, or the swags too full-blooded; and there are such things as great keystones, sticking out like abnormal teeth, that destroy the good appearance of the windows; coarse mouldings that make manifest the immature hand; and a giant egg-and-tongue below the row of worried dentils that is positively exasperating. The Georgian house was not perfect—some, indeed, with a liking for Greek or Gothic things might even declare it to be dull—but it was stamped unequivocally with an air of refinement. With good reason, therefore, may we approach it in humbleness of spirit, seeking by careful measurement to discover wherein its charm lies, how achieved, and how translatable. The aggressive youth and the spiritless duplicator alike will fail to find its secret in their own way, the one by reason of an overweening sense of superiority, the other from lack of sufficient perception. Only the man who is eager to admire, ready to learn, and not engrossed with his own cleverness will achieve an end to which we, too, on our part can accord unstinted praise. The other way leads straight on to Bexhill Georgian.

From the consideration of the elements that go to make up the house of the eighteenth century it is natural to take note of the materials employed, and more particularly to consider the brick. I suppose the "flaming bricks" in Wren's work at Hampton Court have received as much attention as any other, and well they merit the admiration that has been evoked; but I should like to sing the praises also of those beautiful brown gaults that Robert Adam was so fond of. They are of excellent texture, and make a most pleasing piece of walling. Set with close joints, they give a house an appearance of gentility which is eminently appro-

priate to a city, whereas some of the modern experiments in brickwork, with the roughest of rough surfaces and the thickest of thick joints, have a rather incongruous appearance in a town street: they look almost as much out of place as a tweed coat in Mayfair. There is about them a taint of the "back-to-the-vernacular" creed, which, in its most juicy phases, has set down the upper-middle-class town-dweller in the midst of yokel furniture, and made him a rather unfortunate object on his Windsor chair, with so many Toby jugs and andirons and brass bedpans around him.

The recent spell of bright sunshine has brought into prominence a matter which architects are accustomed to burke, that is, the provision of sun blinds. As a consequence the house decorator has been called in, and the nicely squared lines of the window top have given place to those of the unsightly blind casing, with more than a touch of the fretworker's fancy. But it is the architect's fault in the first place for not tackling the problem himself; not an easy problem to solve satisfactorily, it must be admitted, but, at any rate, not an insoluble one. Shutters with louvres are the best solution, and in sunny situations are a boon; but outside shields of some sort there must be, and sun blinds are the common expedient, it is worth the architect's while to take them into account. Nemesis will surely follow him if he omits to do so, and in the form of the average house decorator Nemesis is a thing to avoid.

The "Daily Mail" is nothing if not up to date, and so it was eminently appropriate to find in its columns recently an article giving us "new ideas for the home." The author, Mr. George Gascoyne, was particularly absorbed in the delights of electricity as applied to domestic purposes. But there were other things to think of as well, the psychology of wallpapers among them. In the rooms you paper, says Mr. Gascoyne, beware of red. "The modern builder has a craze for papering dining-rooms in Pompeian red, and this fashion is spreading to the humblest homes. Your surroundings should soothe and not irritate you, and there is no colour so irritating to the nerves as red. Many a bad temper and many an unhappy meal are unconsciously due to a red dining-room. If people who spend hours daily in a red room—however dull the red may be—were to change their wallpaper, they would find their tempers improved and their nerves less jangled. Yellow is a cheerful colour, provided it is not too vivid and glaring. Most blues, except the very pale ones, are depressing and cause a lowering of the spirits, especially the heavy blues, which are unaccountably popular. Greens are soothing, both light and delicate greens and sage-green, and there is a good deal to be said for the lighter drabs. The influence of colour upon our daily lives is so insufficiently studied and imperfectly understood by the multitude."

I will not subscribe to all the foregoing, nor can I agree that "the whitewashed or distempered ceiling is a survival of the mid-Victorian era: it belongs to the days of horse-hair sofas," and the author's suggestion that "plain oak slats, arranged in parallel lines or squares, will suffice for the ceilings of the panelled rooms" recalls American roll-top desks too vividly to be quite pleasant, while it is difficult to see the peculiar merit in applied ceiling decorations in papered rooms because "once painted over and finally distempered they are as hard as iron and will last for ever": there are too many things in this world as hard as iron, and lasting for ever, like polished Aberdeen granite and bronze statues of politicians in frock-coats—one wishes there were more things like those of the china shopman who said: "Our goods do not wear, nor do they grow shabby, but, thank Heaven, they break." UBIQUE



## THE NORMAN SHAW MEMORIAL.

is not often that a memorial is erected to the memory of a great man within a short time of his death, more especially when that man happens to be an architect. It is seldom, indeed, that architects receive any sort of public recognition of their services which are really of high national importance. The case of the late Mr. Norman Shaw, however, was an exception to the general rule. During his life he was probably better known to the public than any of his contemporary architects; and already but two years after his death, his memory is happily perpetuated by a public memorial.

It is only a few months ago that an influential committee was formed with the object of providing a suitable memorial to Mr. Shaw. This committee consisted of the following gentlemen: The Right Hon. Mr. John Belcher, R.A., Mr. Reginald Blomfield, R.A., Mr. T. R. Clayton, Sir Luke Wright, R.A., Sir Ernest George, A.R.A., Sir Edward Watkin, K.C.B., Mr. J. P. Stirling, Mr. H. Douglas, Mr. Gerald C. Horsley, Sir T. G. Jackson, Mr. R.A., Mr. Arthur Keen, Mr. W. R. Lethaby, Mr. A. Lazenby Liberty, Mr. Evelyn E. Macartney, Sir Richard B. Martin, Mr. Ernest Newton, A.R.A., the Earl of Plymouth, Sir Edward Poynter, Bart., Mr. A. Professor E. S. Prior, Mr. V. B. Richmond, K.C.B., Mr. Britton Riviere, R.A., Mr. René Spiers, F.S.A., Mr. Richard Tate, Mr. P. C. Kneller, Mr. Hamo Thornycroft, R.A., Mr. W. G. Wynne, Sir Aston Webb, and Mr. Fred A. White.

The committee, after due deliberation, decided that the memorial should take the form of a medallion, and the design was entrusted to Professor W. R. Lethaby and Mr. Hamo Thornycroft, the former gentleman being responsible for the design and the latter for the modelling.

Last Monday week the memorial was formally unveiled by the Earl of Plymouth in the presence of a large number of gentlemen, among whom were Sir Edward Poynter, Sir Aston Webb, Sir Thomas Jackson, Mr. J. Burnet, Sir Edward Watkin, Mr. J. Dixon Butler, Mr. Gerald Horsley, Mr. Ernest Newton, and several of the late Mr. Shaw's pupils. The memorial consists of a medallion, executed in bronze, and containing a

portrait head of Mr. Shaw to the scale of a 10 ft. figure. Around the head runs an inscription which reads: "Richard Norman Shaw, Architect, 1831-1912"; and surrounding this is a wreath of oak leaves. The medallion is placed on the Embankment front of New Scotland Yard, its exact position being just below the middle balcony at the third-floor level.

As seen in elevation, the medallion is quite a satisfactory piece of work; but as seen from below its effect is rather disappointing. Owing to the height at which it is placed, the circle appears to flatten to an oval shape, and the head stands out in rather too high relief. The medallion must be nearly a foot in thickness, and consequently it has the appearance of being rather obviously stuck on to the surface of the wall. Had it been thinner, and conceived more on the lines of the circular tablets with which the London County Council record the associations of old houses, the effect æsthetically must have been far more satisfactory.

The memorial, however, is excellent in idea; and that it should be associated with one of the principal works of the man whose memory it preserves signals a departure which is more than welcome.

The proceedings at the opening ceremony were quite brief. Sir Edward Poynter, who presided, made a short speech, in the course of which he referred to Mr. Shaw's gift of eloquence. He had, he said, a charm of voice and a fluency and felicity of words scarcely equalled by any speaker that he had ever heard. That memorial had been erected to Mr. Shaw quite as much as a token of the affection of the subscribers as of the recognition of his value as a public man and an artist.

The Earl of Plymouth, in performing the opening ceremony, said Mr. Norman Shaw played a very strong part during the latter years of the nineteenth century, not only in the buildings he had left us, but also in the influence he had exercised upon those who were working in the architectural profession. He not only had the genius of invention, the instinct for true proportion and the feeling of dignity in architecture, but there was something else more easily felt than described in his



Photo: Architects' and Builders' Journal.

THE NORMAN SHAW MEMORIAL, NEW SCOTLAND YARD.

Designed by Professor W. R. Lethaby, F.R.I.B.A., and executed by Hamo Thornycroft, R.A.





THE NORMAN SHAW MEMORIAL.

work—a refinement which was never lacking, however simple and plain the design might be.

Sir Edward Henry afterwards moved a vote of thanks to the Earl of Plymouth.

It is not alone as an architect that the memory of Mr. Shaw will live. His personality was one of unusual dignity and refinement, while his relations with all with whom he came into contact were marked by great courtesy and consideration. That he exercised a great influence over the art of his day is indisputable, though it cannot but be regretted that he



PROFESSOR STANLEY D. ADSHEAD, F.R.I.B.A.,

Who has just been appointed to London University's new Chair of Town Planning.

reached his Classic so late in life. As the fulcrum upon which English architecture turned from imitation mediævalism to a development of Classicism, which, if still immature and imperfect, at least gave excellent promise for the future, Mr. Shaw's work of peculiar value and prepotency.

While the erection of memorials to architects is a subject of topical interest, it may be recalled that there has been no monument to Wren, except that, of course, which is provided by his buildings, and this, it must be admitted, is by no means inconsiderable. If we see his monument we are told to look around; but is it not possible that we may one day look around and fail to find? Of the thirty-five churches that Wren built in the City after the Great Fire, fifteen have already disappeared, and at least one other is threatened with demolition at the present time. His buildings, therefore, are not necessarily an enduring monument. Surely the time is ripe to honour the memory of England's greatest architect. The design of a memorial to Sir Christopher Wren should make an alluring study.

### THE LONDON CHAIR OF TOWN PLANNING: APPOINTMENT OF PROFESSOR ADSHEAD.

IT is with great pleasure that we record the appointment of Professor Stanley D. Adshead to the new Chair of Town Planning at London University. Professor Adshead will, of course, vacate the chair which he holds at Liverpool University, and to which he was appointed five years ago, when the subject of town planning, in this country at least, had received scarcely any attention. The very general realisation at the present time that it is in its broadest aspect a part of the art of architecture is largely due to Professor Adshead's work at Liverpool. On his election to the Liverpool Chair, Professor Adshead once set to work to consider every aspect of the town as a whole, from its historical growth to its modern construction. He made special visits to nearly every town of importance on the Continent, and he also went to America. The result of his researches is to be seen in his own and his assistants' articles in the *Proceedings*, particularly the "Town Planning Review," with which periodical, it is hoped, Professor Adshead may still be able to find the necessary time to maintain his association.

His great powers of draughtsmanship have been invaluable in enabling him to give vivid expression to the scientific theory of town planning which he has ably developed in his many interesting contributions to the Press. In addition to his constructive work, Professor Adshead has accomplished the task of organising successfully the department of which he had control at Liverpool, and there can be no doubt that he will achieve an equally brilliant success at London University. His work at Kennington for the Prince of Wales is concrete proof both of his theoretical and his practical ability. Indeed, the Duchy Estate is the first urban improvement scheme to show a consistent architectural character, and it is far in advance of any similar work in England.

Professor Adshead was born in Manchester in 1858. He was articled to Medland Taylor, of that city, and began practice in London on his own account in 1881. He is now in partnership with Mr. Stanley Ramsden. His works include the Royal Victoria Pavilion, Ramsgate; Carnegie Library, Ramsgate; Bennet's Steamship Co.'s premises, Tooley Street, London; decoration and alteration of Assembly Rooms, Bath; Repertory Theatre, Liverpool; and cottages and farm on the Duchy of Cornwall Estate, Kennington. He was elected a Fellow of the R.I.B.A. in 1905, and is a member of the R.I.B.A. Town Planning Committee.

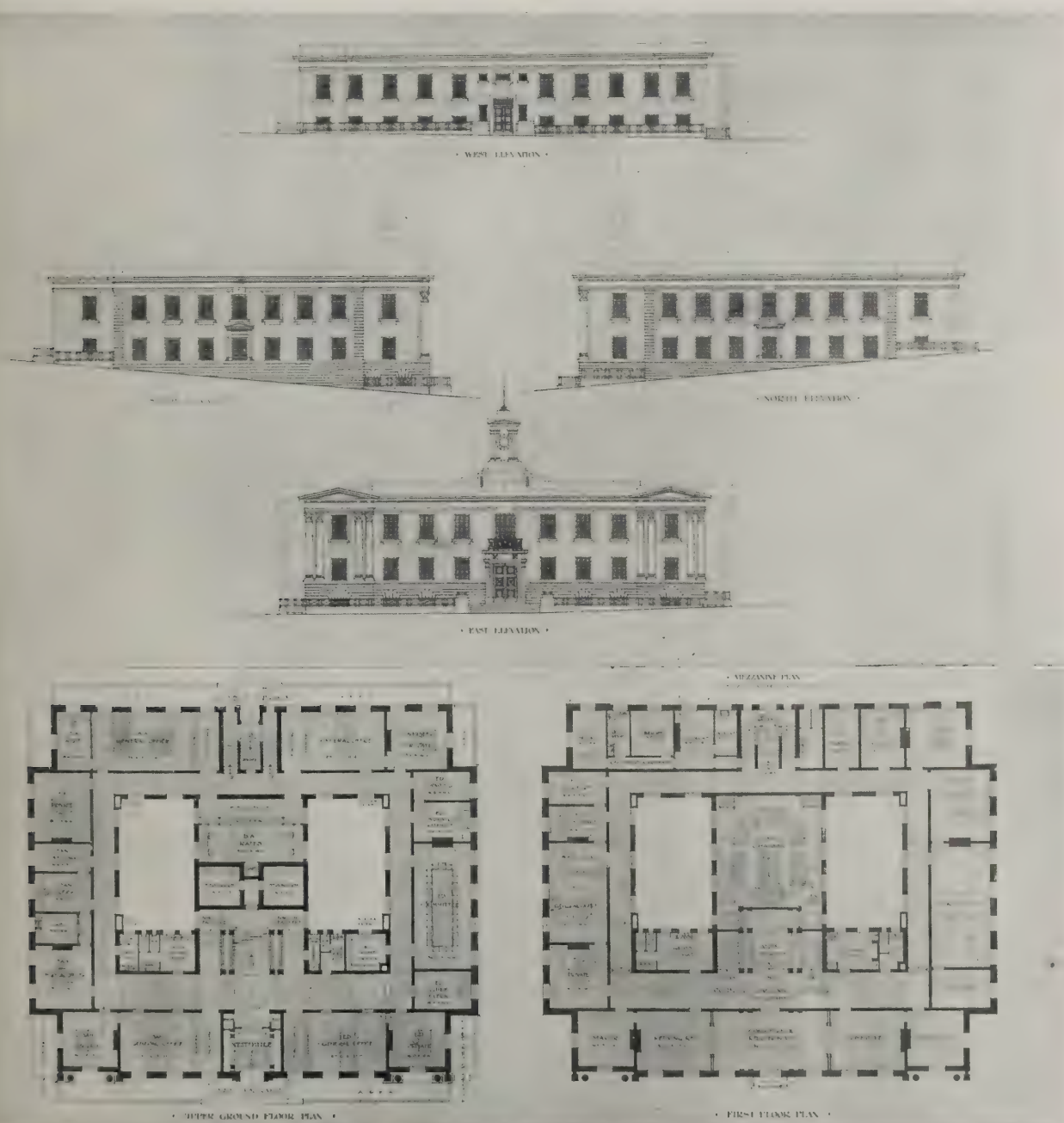


## THE BARNESLEY TOWN HALL COMPETITION.

SPECIALLY CONTRIBUTED BY HUBERT WORTHINGTON, M.A., A.R.I.B.A.

ON the particulars and conditions of the competition for designs for a new town hall to be erected on a site in Church Street, Barnsley, it was stated that a fully qualified assessor would assist the Council in adjudicating upon the plans, and that the decision of the assessor would be final as to the award of premiums, but the Council reserved to themselves the right to make the choice from any one of the plans placed in the first six in order of merit by the assessor. In the event of the plans of any one in the first three being selected by the Council, the premium payable to the architect would be merged in the commission. The front of the building to face Church Street was to be not less than 90 ft. and not more than 105 ft. Between these limits the frontage was left to the discretion of competitors. The chief accommodation required was: Town Clerk's Department—Private office for town clerk, general office for staff of six, chief assistant's room, additional room, large strong-room in

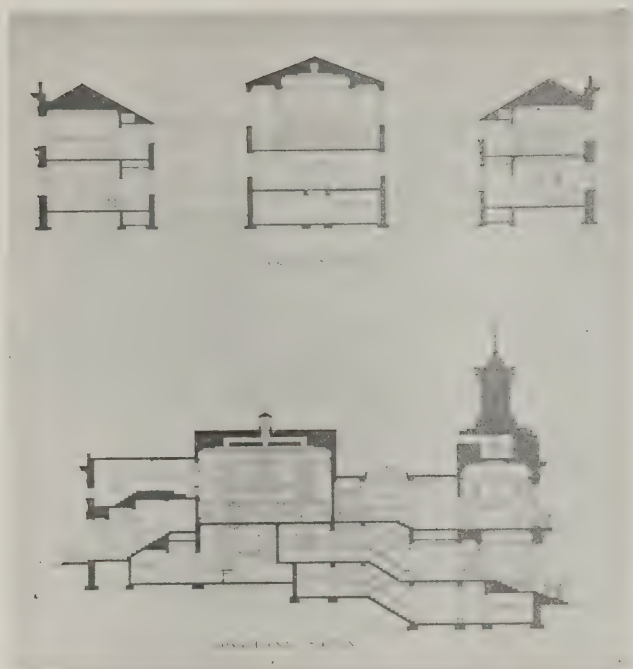
basement. Borough Surveyor's Department—Private office for surveyor, inquiry office, general clerk's office, building and drainage inspector's office, drawing office with good light, plan room, small room for samples and for testing purposes, strong-room in basement. Waterworks Manager's Department—Small office for a clerk, general manager's office. Borough Accountant's Department—Private office for borough accountant, general office for staff of ten, large strong-room in basement, rate collectors' office, audit room or spare room. Sanitary Department—Two rooms, private room for medical officer of health, clerk's office, waiting-room, laboratory accommodation. Education Department—Private office, office for chief clerk, general office for staff of six, school attendance office and waiting-room, additional committee room, large store-room, strong-room in basement. Overseer's Department—Private room, general office. Weights and Measures Department—Two rooms in basement. The Council



BARNESLEY TOWN HALL COMPETITION: FIRST PREMIATED DESIGN.

P. H. TOPHAM, ARCHITECT.





BARNSELEY TOWN HALL COMPETITION: FIRST-PREMIATED  
DESIGN. P. H. TOPHAM, ARCHITECT.

chamber was to seat forty-eight members and ten officials.

Below are given some brief notes on the competition by Mr. Hubert Worthington, M.A., A.R.I.B.A., who, in the peculiar circumstances of the case, has preferred not to criticise the exhibited designs in detail.

The premiums were awarded as follows: 1, P. H. Topham, 4, St. Anne's Square, Manchester; 2, W. C. Laidlaw, 13, George Street, Edinburgh; 3, Clough and Morrell, 139, Sydney Street, Chertsey, S.W.

The assessor's award does not leave loopholes for criticism. The winning plan is the best of those submitted. It satisfies the conditions, being efficient and economical, and, considering the circumstances, the Council are fortunate to have obtained so good a scheme. It is satisfactory to note that they have accepted the assessor's award.

The conditions of the competition have been freely commented on by the architectural Press. Suffice it to recall now, therefore, that the Royal Institute of British Architects and the Society of Architects, the two leading bodies of the profession, requested their members not to compete.

Though a fair number of designs were submitted, this is no great matter for congratulation, assuming that quantity cannot make up for quality, for the quality is not of the highest.

The planning of municipal buildings has of late years becomes so stereotyped that efficiency can be taken for granted in competitive plans, but the fact that a building supplies a practical need does not necessarily imply that it is good architecture. If the Barnsley Council is content with mere convenience and economy, let it congratulate itself: but if there are any of its citizens who had hoped for a lasting monument to civic dignity and an expression of the higher ideals of municipal government, they must have despaired of getting it when they learned in what circumstances the competition had materialised.

To have allowed the competition to go forward in deliberate disregard of the suggestions and advice of the leaders of the profession was simply fatuous, and the Barnsley Council are now in a position to realise that they have thrown away an excellent opportunity.

HUBERT WORTHINGTON.

## THE PLATES.

### *Linden House, The Mall, Chiswick.*

THE historic Chiswick Mall is one of the finest legacies bequeathed to London by the eighteenth century. It is a promenade fronted by stately houses, the majority dating from 1750 to 1800, and of these Linden House is one of the most important. It is impossible to produce in a photograph the mellow tones of the red and brown brickwork, set off by the stone dressings of silver-grey, which so greatly contribute to the charm of the building. The treatment of the entrance door is both original and interesting. The windows on the first floor to the right wing have probably been altered at a later date when the rather poorly designed iron balcony was added.

### *House at Denham, Bucks.*

In the design of this house, the architect, Mr. Francis Bacon, signalises yet once again the dignity of simplicity. No purely decorative feature is introduced even the well-proportioned brick quoins at the angles are, as it were, an organic development. Perhaps three dormers instead of five would have given the roof more character, or at least have left it more expanse of its own; but then they would have been less logically expressive of the plan, and would have broken the correlation with the wall-openings beneath them.

### *Cottingham's Designs.*

It is gratifying to hear from several sources that the series of designs by Cottingham which have been reproduced in this Journal are being turned to excellent practical account in the studios of several art metal workers. Plate XIX. of the series shows main designs for silver plate, and Cottingham has subordinated his hand to the finer metal, his draughtsmanship showing a delicacy for which his designs for ironwork had wholly prepared us.

### *Louis XIV. Vase, Versailles.*

Rather Baroque exuberance in the decoration does not detract much from the grace of outline of this vase although it makes the bowl appear to be somewhat over-heavy for the pedestal, in which the ornamentation is more restrained and is designed to a smaller scale; yet were it otherwise there must have ensued a somewhat clumsy general effect.

### *Order from the Basilica Æmilia, Rome.*

This further example of M. Ernest Hébrard's fine series of drawings of details of the Æmilian Basilica in the Roman Forum affords strong evidence of the richness with which the Romans sometimes invested the orders, and, collectively, the series shows the facility with which a few simple elements lend themselves to various re-combinations.

### *Practical Chart of Town Planning Procedure.*

Stage 6 in the preparation of schemes by owners details the successive steps to be taken in case the scheme is modified by the Local Government Board.

### *Palais de Justice, Brussels: Main Entrance and Tower.*

Poelaert's Palais de Justice is interesting in its every aspect, and the rendering of any portion of it, in any medium, always commands admiration. This week we reproduce, in black-and-white, a fine water-colour drawing, by Mr. William Walcott, of the main entrance. In this there is perhaps some slight exaggeration of the rugged grandeur of the building, and a rather considerable obscuration of the details which in a photograph would have been sharply defined; but consequently on the repression of what to the painter's eye is comparatively insignificant there is certainly an enormous gain in impressiveness of total effect.



## CORRESPONDENCE.

*The Editors disclaim all responsibility for the statements made or opinions expressed by correspondents, who are asked to be brief, and to write on one side of the paper. Every communication must bear the name and address of the sender.*

*Licentiates and the Institute.*

*To the Editors of THE ARCHITECTS' AND BUILDERS' JOURNAL.*

SIRS,—As you are aware, we have been recently getting into touch with the Licentiates of the British Institute to discover their views upon the proposed Charter, and in numerous cases suggestions have been made in favour of resigning from the Institute and joining forces with the Society of Architects.

May we, through the medium of your paper, particularly ask all Licentiates to defer resignation until the final form of the new Charter has been decided upon by the Council?

Once connection is severed with the Institute reinstatement will be impossible, whereas by remaining Licentiates we can claim some part in the welfare, if not the control, of the body.

It is even possible that in time the Corporate members may realise that the Licentiate class have some power for good or evil, and we may yet assist in transforming a "divided camp" into a powerful and honoured institution.

F. HOULTON WRENCH.  
FRANCIS A. WINDER.

*To the Editors of THE ARCHITECTS' AND BUILDERS' JOURNAL.*

SIRS,—I have received a circular letter, which I enclose herewith, signed by a member of the Institute of Civil Engineers and a Fellow of the Surveyors' Institution, protesting on behalf of the Licentiate class of the R.I.B.A. against the proposed new Charter, on the grounds that Licentiates are not to be authorised to style themselves Chartered Architects.

The circular further goes on to say that unless the R.I.B.A. Council are prepared to modify the objectionable clauses the Privy Council will be petitioned to disregard the application by the Institute for the Charter in its present form, owing to the grave distinction between the classes.

Do the Licentiates really, as a class, claim to be fully qualified architects, and think that their inclusion in "Chartered Architects" would be for the honour of the profession? As one who has known personally a large number of Licentiates and their work, I am confident that wholesale inclusion on the flimsy evidence as to qualification which was required for admission to the Licentiate class would create a lasting blot on the profession.

There is no doubt that the allied societies are largely to blame for the present conditions. Their undignified scramble to obtain a record number of Licentiates so disgusted me that I took the earliest opportunity of passing the examination for Fellowship, and entering the Institute as a full member, and my advice to those Licentiates who are dissatisfied with their lot is to go and do likewise, and not to try and tie the hands of the Institute at a very critical time by insisting upon recognition which, in nine cases out of ten, they are not entitled to.

Lastly, I should recommend all Licentiates before committing themselves to any such course of action as suggested by the circular, to read carefully the form of declaration which they were required to sign before admission to this class.

F.R.I.B.A.

*To the Editors of THE ARCHITECTS' AND BUILDERS' JOURNAL.*

SIRS,—I received a circular letter the other day addressed to all Licentiates of the Institute asking for support in petitioning the Council against their

proposal to differentiate in the proposed new Charter between Fellows and Associates and Licentiates, and if this proposal fall on deaf ears, as of course it will, to petition the Privy Council to try to stop the Charter being granted.

The question naturally occurs to one, what is the matter with the Institute that it finds itself time after time face to face with insurmountable difficulties in its rôle of governing body of the profession?

For years the Institute scoffed at the Society, and looked down upon its members as so many outsiders, and I don't know that in the main it was not right; but, in spite of this, the Society grew, and taking the absolutely right course of proposing and putting forward Registration, became a power which could no longer be disregarded. The Institute's course then was to try to circumvent them. Ridicule had failed. The public generally were equally impressed with one set of letters at the end of a man's name as another: "We must recognise them," said [in effect] the Council; "let us absorb them and father their Bill." And a very wise proposal too. But then uprose the Frankenstein of the Institute in the shape of the Associates; and, in the pride of their youthful prowess, scotched the idea born of the better judgment of their elders, and so we went back to the dual control of the profession, and the opposing forces within it, which can only lead to its being permanently under a cloud and regarded by the other protected professions as something inferior.

Another way is then thought of by some ingenious R.I.B.A. Councillor, *i.e.*, to rope in the best men they could find outside their ranks by electing them Fellows, thus weakening the Society and making them a negligible quantity. Unfortunately they overdid it. For a time it worked all right; then the game became too popular, and they began to run cheap excursion trains to that desirable health resort in Conduit Street; and again uprose the youthful monster they had been at so much pains to create and thwarted them once more, so that still there were undoubtedly many good men outside the fold. Another brain-wave produced the Licentiate idea, and this time apparently the juvenile spectre did not quite see his way to put a spoke in the wheel; or perhaps he was tired—anyway, that has gone merrily on, and scooped in money and members. Unfortunately this idea has undoubtedly gathered in some undesirables—probably in large numbers—and so the Council have created another monster whom they are now endeavouring to chain for fear of his biting them as the other one has done.

Now, sirs, I don't think any of us who have really taken our work seriously and devoted our whole life and interest to it, have any doubt or other desire than that the Institute should be the governing body of the profession; and yet we see all their efforts to gather strength for the task miscarry. Why? The reason seems to me to be obvious, and it is because the Associates will not see that they are only part of the whole, and by no means the most important part, and that no Parliament is going to pass a Bill which ignores vested interests and would do serious injustice to hundreds of people who have devoted their lives to and depend upon the practice of their profession for a living: neither are you in the least likely to get a Bill of this sort through Parliament when those for and against it are pretty equally divided, especially when you remember that, generally speaking, the public don't care a brass farthing.

Registration is admitted by almost everyone to be the proper course, and, to get that through, you will have to include all and sundry at the start and wait for the years to come to purify the profession, as all other professions have had to do.

Don't forget that even now there are many men swelling with pride at the possession of the mystic



F.R.I.B.A. whose accomplished work by no means justifies the distinction; and, after all, that is what counts. Far be it from me to suggest that other learning and general culture are not of great advantage, and a thing to be desired to raise the whole tone of the profession; but if our profession is a creative one, the mere manufacture of practitioners from people who have good memories and the exclusion of all those who have not is not the way to produce great architects as we have known them in the past.

I believe, generally speaking, the Associates who have gone into practice have produced sound work; but they are not the only ones. . . . The only way to the desired end of a closed profession is a united front by all interests on equal terms—let distinction come after and there is no fear that it will come to those who deserve it.

Sidmouth.

R. W. SAMPSON.

[We have been compelled to curtail somewhat this correspondent's over-long but engagingly frank letter, which, it should be noted, was received by us before the correspondent could have seen the editorial observations on the subject in last week's issue. We had expected some reference to "Frankenstein," and that, as usual, it would be misrendered.—EDS. A. AND B.J.]

*To the Editors of THE ARCHITECTS' AND BUILDERS' JOURNAL.*

SIRS,—Your attention will no doubt have been drawn to a circular which has evidently been sent to all Licentiates of the Institute. This circular has been authorised by a group of Licentiates who have formed themselves into a committee ostensibly for the purpose of petitioning the R.I.B.A. Council, and, "if necessary," the Privy Council, with regard to Clause 2 of the proposed new Charter. An analysis of this circular will surely be interesting to the profession generally. [Our correspondents' analysis is omitted, as the gist of the circular was given in our editorial notes last week.]

One pauses to see the nature of their appeal, which amounts to nothing less than a demand that no distinction should be made between the Licentiate and Associate classes. The personal efforts, work, and expense entailed by those who have sought to qualify for admission to the Institute by examination shall be all to no purpose and of no avail. This body of Licentiates would apparently seek equal distinction for which they have "toiled not," etc.

It should be borne in mind that the petition does not take the form of a suggestion that all other architects enrolled after the Charter has been passed should be separately classed, although this is stated to be the ground of complaint. This appears to be far from the minds of the petitioners, as no mention of this is found in the circular. One can well imagine the feelings of those members of the Institute who have been successful in working their way patiently through the various examinations at this attempt to obtain—through a combination of circumstances—what has hitherto been reserved for those who have cared to work for what has been considered to be the best distinction in architecture.

It will be noted that the two signatories to the circular have thought fit to qualify in engineering and surveying (being members of the Institute of Civil Engineers and Surveyors' Institute respectively). It would be interesting to know how they would view an attempt by professional men outside these Institutes to gain admission to the same and then appeal to be given the same status as themselves. Such a proceeding would be exactly on all fours with the effort they are now engineering.

The appeal cannot be said to be in accord with the British spirit of fair play, and it is to be hoped that little support will be found for such an unworthy

petition, which will no doubt receive the scant respect which it deserves at the hands of the R.I.B.A. Council.

FIVE ASSOCIATES.

[The names of the "Five Associates" are appended but "not for publication." We see no adequate reason for this reticence. From our point of view it would be infinitely preferable that actual names should be appended to the letters that are published upon this or any other subject, although we make no strict rule upon the point, beyond insisting that all communications must be accompanied by the names and addresses of the senders. Any communication which disregards this very necessary rule is simply ignored.—EDS. A. AND B.J.]

*Impersonal Art.*

*To the Editors of THE ARCHITECTS' AND BUILDERS' JOURNAL.*

SIRS,—In your issue of June 10 your contributor "A. T. E." sets out, apparently, to affirm a quite admirable dictum that co-operative design and construction in architecture is foredoomed to failure—save, perhaps, he might be prepared to admit, under quite exceptional circumstances. But in order to prove this he deems it necessary to deliver first of all a rather misleading harangue upon the vital importance of art being impersonal.

Fortunately, this is all quite unnecessary, otherwise after serious consideration of his remarks, many of us might find ourselves driven to prefer even work of co-operative effort to the stillborn productions of soulless copyism which would result from the lit acceptance of his views.

He rightly declares that the band of co-operative designers cannot, under present conditions, hope to supersede the individual architect; but in his admission the weakness of his case for impersonal art becomes evident. It is precisely because the individual architect's design is the expression of one high personal idea in homogeneous shape, through the medium of traditional forms (the universal language) that it proves its superiority over the work in which the personalities of a band of designers are seen in variance—with a resulting loss of homogeneity and unity of conception. *Personal*, not impersonal, is the opposite of co-operative art.

Nor will history and experience bear out the statement that art to have a universal appeal must be impersonal. Art which is impersonal is dead, and has no appeal. As George Moore has put it, "I often said that the personality of the artist concerned not, and in the case of bad art it is certainly true, bad art reveals no personality. Bad art is bad because it is anonymous. The work of the great artist is himself."

"A. T. E." makes the very obvious mistake of believing that in order to be personal in architecture one needs must throw over the lessons of tradition. This is of course nonsense. The history of the Ecole de Beaux-Arts, a school in which anywhere, tradition is revered, is sufficient proof of the gravity of his error. And fortunately, too, in our own country, to go no further back, we have only to look at the works of Elmes and Cockerell, or the earlier masterpieces of the brothers Adam, to have brought home to us unmistakably that traditional form and personal expression are by no means irreconcilable.

Surely impersonal art is by its very nature bound to decline into soulless copyism—the most tragic condition in which the art of any people can be itself.

"A. T. E." would point to the works of the Greeks as one supposes, as being the ultimate examples of impersonal art; but these have become impersonal only through lapse of time, and the fact that but one or two special examples remain to us, and so on.



become for us the expression of the typical Greek spirit of architecture. Can any one of us who looks at them doubt that when they were executed they were the very personal expressions of the individuality of their authors through traditional forms?

The creation of the universe is for those who believe in a personal Deity, the first great example of the expression of personality through creative effort, and the creation of beautiful things by men ever since has been due to a similar need of expression. No really great artist ever set out consciously to create impersonal universal art. Some second-rate artists have tried, but failed, to be universal. All the artistic works which are now recognised as universal in their appeal are so, not because of their impersonal but because of their *personal* quality; their humanity, which has given life to the dead forms, Classic or otherwise, in which it has clothed itself; for the interest in personality and its expression is a universal human endowment.

JAMES R. ADAMSON.

[In saying that "impersonal art is by its very nature bound to decline into soulless copyism," Mr. James R. Adamson is making a gratuitous assumption. Impersonal art never degenerates into copyism, for it is the product of those artists who are capable of apprehending æsthetic principles. Principles can only be formulated by "persons," but it does not follow herefrom that the principles are personal; when a general statement is "personal" it ceases to be a principle and becomes a dogma. It appears that Mr. Adamson believes that art is not the expression of any principles at all, that it is due to the joint influence of "personality" and "tradition." As no attempt is made to define these words, his argument is devoid of force. When an artist acknowledges the influence of "tradition" upon his work, he cannot be exonerated from the charge of copyism, even if he shows his "originality" by introducing small modifications into the forms which he has stolen. For immediately the masterpieces of the past have been understood they cease to be tradition, but become an exemplification of reason. The absurd antinomy of personality and tradition upon which theorists have wasted so much discussion, vanishes as soon as art is recognised to be impersonal. —A. T. E.]

#### *Pulley Problem.*

With reference to this subject (see p. 449, June 24, and p. 30, July 8), Mr. A. W. Wyatt writes: "I think Professor Adams's answer is certainly somewhat surprising, assuming that a four-sheave block and a three-sheave block (seven pulleys) are under consideration, and that it is the four-sheave block that is fixed to the beam. The mechanical advantage would be 7 to 1 if the running end is made fast round the falls; the weight on beam would be 10 tons plus weight of tackle. If, however, the running end is made fast to ground the strain would be on beam  $10 \text{ tons} + \frac{10}{7} \text{ tons}$ ;  $\frac{10}{7} \text{ tons}$  being the strain that would be thrown on holdfasts on ground. If, however, a four-sheave-block is made fast to beam, and three-sheave made fast to ground, with 10 tons on running end, the power exerted would be 7 to 1 on beam, which would then be 70 tons through tackle and 10 tons on running end, thus making total strain of 80 tons on beam."

Professor Henry Adams replies: "With reference to his correspondence, the writer has no copy of the original query or sketch, but it may be taken as similar to that shown at A on p. 30 of your Journal. It is, of course, a "problem" only, and not a practical case. With ordinary blocks and falls the load on the beam would be the load lifted + weight of moving parts + pull on lifting rope."

## A PHOTOGRAPHIC AND SKETCHING COMPETITION.

THE proprietors of this Journal have pleasure in announcing a photographic and sketching competition similar to that which proved so great a success some two or three years ago. This competition is open to all regular readers of the Journal, and the conditions are as follows:—

A prize of one guinea will be awarded each week for the best photograph or drawing of architectural detail shown to a large scale (a sample illustration will be given next week). It is desired that competitors should confine themselves to details possessing some special architectural interest, though views of complete buildings will be open to consideration provided that they are unfamiliar and illustrate some particular point of architectural composition.

The copyright in the photograph or drawing awarded the prize of one guinea is to be vested in the proprietors of the Journal, and the Editors reserve to themselves the right to reproduce, without fee, any of the other photographs or drawings submitted.

The decision of the Editors in respect of the awards is to be regarded as final.

Competitors may submit any number of photographs or drawings, and may take part in the competition as often as they like; but in no case can a photograph or drawing be considered more than once. The choice of subject is quite unrestricted, both in respect to period and style; but it is suggested that particular interest would attach to such details as doorways, windows, grilles, screens, cornice brackets, capitals, panelling, chimneypieces, ceilings, fonts, pew-heads, metalwork, etc.

All drawings and photographs must be packed flat and must reach the Editors not later than Wednesday for the succeeding week's competition.

Each parcel must be addressed to "The Editors, THE ARCHITECTS' AND BUILDERS' JOURNAL, Caxton House, Westminster," and on the outside the words "Photographic and Sketching Competition" must be clearly written. Stamps must be enclosed covering the full postage charge for the return of unsuccessful work.



DETAIL OF STAIRCASE BALUSTERS IN HOUSE AT DENHAM, BUCKS. FRANCIS BACON, ARCHITECT.

(See also Special Plate, and Letterpress on p. 62.)



## ENQUIRIES ANSWERED.

*Under this heading, difficulties met with in professional or business practice are dealt with by a staff of experts. Only really practical questions are desired.*

*Replies will be published as promptly as possible, and in the ordinary course no charge is made to the querist.*

*Urgent questions, however, will be answered by post in advance of publication, provided the querist encloses a postal order or stamps to the value of 1s. This sum is not to be regarded as payment for the reply, but merely as an expedition fee; and, while taking every care to ensure dispatch and accuracy, the Editors disclaim all responsibility for any delay or inaccuracy that may unavoidably occur.*

*In all cases the Editors reserve their right to publish the question and answer or not, as they think fit, and to reject any question that is deemed to be unsuitable.*

*Querists are asked to state their questions as briefly as possible, and to write on one side only of the paper.*

### Kieselguhr: Diatomaceous or Infusorial Earth.

J. R. (Yorks) writes: "Can you state the value of the material known as diatomaceous or infusorial earth, or kieselguhr, per ton in its rough state?"

—Kieselguhr is a fine diatomaceous earth, which, on account of its cellular character, is highly absorbent, and was the first substance used for producing nitroglycerine, a practical explosive, in the form of dynamite. It is found near Unterlüss, between Bremen and Hanover, where it occurs near the surface. It also occurs in France, Italy, and Scotland, and is imported in some quantity from Norway. The quality of kieselguhr varies very much. When pure it consists almost entirely of silica, but it often contains oxide of iron, alumina, and sometimes organic matter. The least impurity can be removed by calcining the earth, but if iron is present the resulting substance will have a pink tint, due to the oxide of iron formed. Even the best varieties will show a pink tinge after calcination. It is easily crushed to a fine powder, but for the full development of its absorptive power this sub-division should not be carried too far. The price of kieselguhr in London at the present time ranges from £5 to £11 per ton, according to quality. A. E. M.

### Regulations for the R.I.B.A. Final.

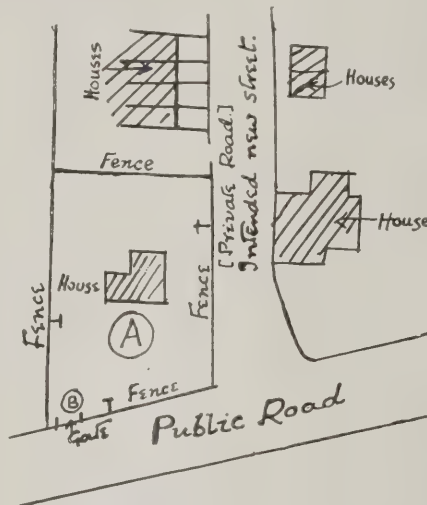
LANIF (Rochdale) writes: "I am about to commence study for the Final R.I.B.A. and shall be glad if you will kindly inform me through the columns of your paper (1) where and how often are the testimony design subjects published? (2) Is any application form necessary to send up with any of the designs? (3) Has the fee of £4 4s. to be sent up with the first design? (4) What classes and text books would you advise for the science subjects of the exam.? (5) Have the designs to be sent up flat or rolled?"

—For replies to these questions we are indebted to the courtesy of the Secretary to the R.I.B.A. Board of Architectural Education: (1) A list of problem subjects is published twice a year and the problems must be submitted bi-monthly. A list of the subjects is published in the R.I.B.A. Journal and the professional Press. (2) It is not necessary to send any application

form with the design. (3) The fee of £4 4s. must accompany the application for admission to the examination—i.e., when the candidate has had four designs approved. (4) A list of books recommended to students is published in the Kalendar, price 2s. 10d. by post. (5) The designs may be sent in either flat or rolled.

### Apportionment for a New Road.

D. H. (Yorks) writes: "Can the owner of the property marked A (see rough sketch) be compelled to pay any portion for the making of a new street (now a private one) when the U.D.C. take it over? He never uses the street, and has no approaches to it from his property. All the fences belong to A. The entrance to A's property is shown at B, leading from a public road already made."

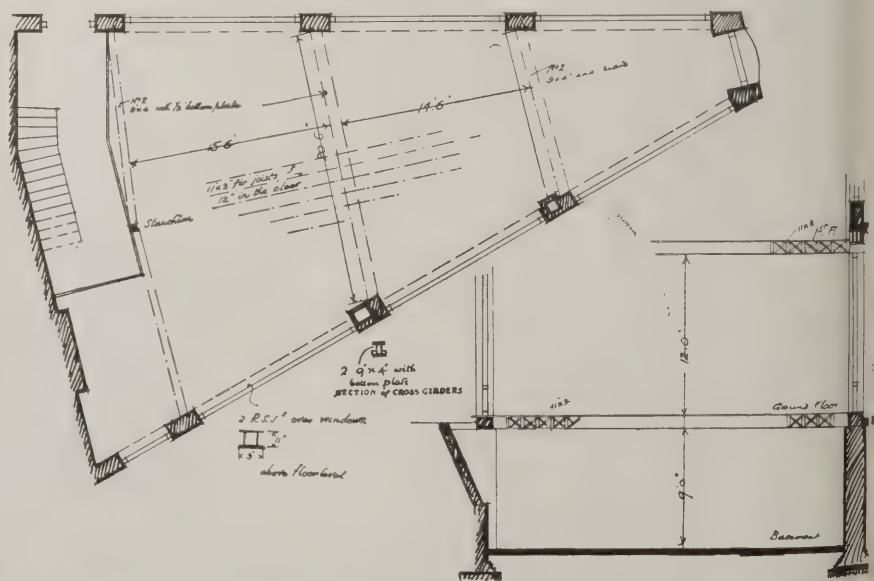


APPORTIONMENT FOR NEW ROAD.

—I am of opinion that, in default of a positive bargain to the contrary (e.g., in A's purchase agreement) the owner "A" is liable for a contribution pro rata in respect of his frontage to the new side road. It then naturally follows that he has a right to open a way out and to use the new road. F. S. I.

### Floor-loads in a Factory Building.

H. C. H. (London, N.W.) writes: "The enclosed plans represent the arrangements



FLOOR-LOADS IN A FACTORY BUILDING.

on all floors of a factory building. proposed to use the first floor for storage of machines in crates stacked three. Each crate weighs  $3\frac{1}{2}$  cwt., and base is about 2 ft. by 2 ft., thus making total of  $10\frac{1}{2}$  cwt. on each 4 ft. sup. of area. Is the floor shown strong enough to carry these weights? And, if not, would be the most economical method of strengthening the floor? It will be noted that the R.S.J.'s over the windows are above the first-floor level."

—As the superimposed load on the

will be  $\frac{10.5}{4} = 2.625$  cwt. per sq. ft.

the floor itself will weigh about .375 per sq. ft., a total of 3 cwt. per sq. ft. must be provided for. With a span of 15 ft. 6 in., the existing fir joists 11 in. by 3 in., 12 in. apart in the clear, will

support safely  $3 \times \frac{11^2}{15.5} = 23.4$

each, or  $\frac{23.4}{15.5 \times 1.25} = 1.2$  cwt. per sq.

which is only about one-third the actual load. Probably the best way to strengthen the floor would be to put two 8 in. by 15 ft. 6 in. apart, with an 8 in. by 6 in. by 35 lb. rolled steel joist with the ends cantilevered at the windows across the division of the fir joists; and in the other bays a single 8 in. by 6 in. by 35 lb. rolled steel joist having the ends hung up to window girders.

HENRY ADAM

### Hard Plaster Finish.

PLASTER (Berks) writes: "Can you recommend any of the patent hard plaster which when finished of an even creamy yellow tint and does not require the use of a temper and can be left with a rough wall surface?"

—The patent plaster "Adamant" probably meets the querist's requirements and it is reliable in use. However, a number of patent plasters is now large, and sand may be mixed with some of them for the finishing coat; the colour of the sand affects the tint of the finishing coat, and the tint desired by the querist could probably be obtained in this manner also. F. I.



## ELIMINATING THE CONTRACTOR.

Further correspondence received on this subject (see our issues of June 17, 24, and July 1) includes the following letters:—  
*Mr. Banister F. Fletcher, F.R.I.B.A., S.I.*, writes:

It seems to me that if you eliminate the contractor you will have to put somebody in his place who would be responsible for carrying out the work, and who, in case of loss on the building, would be prepared to stand the loss! It is well known that in some instances a loss is made on a building; and if the contractor is eliminated and direct labour employed, would the workmen be prepared to work at less than trade union wages provided those acting for them made mistakes in their calculations? This seems to me a point which would wreck any attempt to do away with a responsible contractor. Such an idea could not possibly appeal to any business man, because the basis of all building contracts is that it is a contract to build a building for a stated sum.

The 'direct labour' system, whatever it may mean, would certainly increase the architect's burden and the building owner's risks and responsibilities, and, as stated above, I do not see how it would work.

The chief objection to direct employment of labour, as far as I can see, is that it is impossible for the architect to act in a business way with each separate set of trades unless 'labour' is prepared to act in business way by assuming the responsibility for completion of contracts.

The question as to the cause of labour unrest is answered partly by the fact that labour unrest is occurring in all parts of the world. Profit-sharing and co-operation are all very well in certain forms of business, but I doubt very much if the average workman would consent to look at it if it meant that in a case of there being no profit, but a loss, he would be prepared to share it. I have no doubt that any firms of builders would agree to a profit-sharing scheme if it were made on business lines, and so as to be not onerous in treatment. There is no doubt, however, that a responsible contractor, whether as a syndicate or as a group of men, is absolutely necessary for the efficient carrying out of building, and that any change from that course would not only be inimical to the building trade, but would so render the position of the architect intolerable.

"I think these few hurried lines may be of interest to your readers."

*A Clerk of Works* writes:

The criticism by Sir Ernest George (June 24, p. 446) that direct employment would be putting temptation in the way of the clerks of works; and by Mr. Eastwell Grayson (same place) that the building owner would require to be instantly on hand to keep the clerk of works up to the mark and to write endless letters, are both not only very poor reasons for retaining the contractor, but cast an undeserved slur on clerks of works generally which is not deserved. That there are dishonest clerks of works, as there are dishonest architects, no one will deny.

"As a clerk of works who has carried out work both by direct employment of labour and by contract, I think I can speak from experience which many in my profession have not had. The fact is that in certain cases the usual method of con-

tracting is preferable, and in others direct employment of labour. As to the latter, on landed estates, where an able clerk of works is employed, and with a works department, the direct employment system is, as a rule, advantageous. On the other hand, a private individual putting up new premises, warehouses, etc., would find it cheaper and better to have the work done by contract. Apart from the question of responsibility for fees, workmen's liability, etc., the contractor has the plant required and knows where to find any special men, as well as retaining experienced foremen for all classes of work. For the private individual to have to find these, hire plant, etc., would be impossible, whilst if the various trade unions undertake the work they will be in the same position as a contractor.

"There is no doubt that contracting is the better method in far the greater majority of cases, but the difficulty is not in finding either able or honest clerks of works."

*Mr. Arthur Keen, F.R.I.B.A.*, writes:

The elimination of the contractor is certainly a possibility in some cases, and one knows of large buildings that have been carried out without the help of a builder. For instance, many of the late George Devey's houses were built in this way; but as a system for general adoption it appears to be quite out of the question. If no other difficulty presented itself the question of responsibility would put it outside the possibilities at once. I can recall certainly three cases where adjoining buildings have fallen down and had to be rebuilt in consequence of unskilful building operations. What employer would make himself responsible for such risks as these, or for the risk of delay that was beyond his own control and that could be charged to no one's account except, perhaps, to that of a foreman in receipt of weekly wages? Who would be answerable for ceilings that fell, for joints that opened, for concrete that failed, for pipes that split, and all the other thousand ills that buildings are heir to?

"But apart from such things as these, if a builder is not employed, who is going to do his work? A builder's is one of the most trying and difficult trades in existence, and neither architect, quantity surveyor, clerk of works, foreman, or any one else, can take the contractor's part in a building operation. Each of them has his place in the work, and it is as distinct from that of the builder as a doctor's place is from that of the nurse or chemist. You cannot take a builder's place without becoming a builder, with a yard and workshops, a clerical staff, contractor's plant, and so forth. If the builder is dispensed with, the building owner must accept the risk of all defective work, accidents, delay, and unlooked-for expense.

"It is asked whether the architect's risks and responsibilities would be increased under the direct labour system, but what responsibility would an architect in his senses accept in such a connection? Would he take responsibility for the acts of people who were not his own employees, for roguery in the purchase of material, for want of judgment in the lifting of heavy weights, or the shoring of rotten brickwork, or the timbering of trenches? Of course it is out of the question.

"As for the matter of cost, the building owner would save some profits—by no means all, because his opportunities for cheap buying would not be nearly equal to those of a builder—but he would be at a disadvantage in having to buy or hire

plant, and he would lose the benefit of the economy that is the outcome of a builder's great skill and experience in administration and organisation. He would lose, too, the value of the discipline and order that a contractor imposes on his employees by sheer force of his personal authority, and he would be constantly losing time and money by not having the right man available at the right moment. In short, he would lose the benefits that belong to the professional and suffer from all the limitations of the amateur.

"You ask what are the causes of labour unrest in the building trade. I suppose they are the same as those that operate throughout society; greater prosperity, increase of education and opportunity, growth of political power, facilities for locomotion, the multiplication of commodities of every sort, and many other causes which operate not only on those who have motor cars, but also on domestic servants and on everyone else, from lords to paupers.

"I do not think that profit-sharing would be feasible where men are constantly moving from one job to another, as they do in the building trade."

*Mr. H. J. Birnstingl, A.R.I.B.A.*, writes:

"None of the contributors to your articles, 'Eliminating the Contractor,' seem to have realised that as some of the services performed by the contractor to-day—viz., those of organisation and superintendence—appear to be indispensable, he can still be retained in these capacities in a 'direct labour' scheme, but he will be paid a salary for them, on the same basis as other members of the L.B.F.

"Further, I see difficulties with regard to plant anticipated. These seem unnecessary. Just as now the contractor owns plant, so in the future (should this scheme make any headway), the L.B.F., supplanting the contractor, would own plant.

"I may add that this attempt of the Theosophical Society is by no means the first of its kind. The Battersea Museum was, I believe, successfully erected by the employment of direct labour."

[Other communications on this subject are unavoidably held over.]

## NOTTINGHAM AND DERBY ARCHITECTURAL SOCIETY.

A party of nineteen members of this society attended the annual excursion on Thursday, July 9, travelling to London, thence by motor char-a-banc to the Hampstead Garden Suburb. The principal buildings, including the church, chapel, etc., were inspected under the guidance of Mr. Raymond Unwin, F.R.I.B.A. Luncheon was had at the clubhouse on the estate, and after thanking Mr. Unwin for his kindness the party motored to Hampton Court, where Mr. A. W. S. Cross, F.R.I.B.A., Vice-President of the Royal Institute, took charge of the party and conducted them through the state rooms, great hall, etc. After tea on the riverside the beautiful gardens and the great vine planted in 1764 were visited. The girth of the main stem of the latter is now 4 ft. The motor journey across London was most interesting. Dinner on the train, and thanks to the president and hon. sec. for arranging such an enjoyable trip brought the excursion to a close.



## SPECIAL LEGAL REPORTS.

**An Architectural Partnership.***Anderson v. Bond.*

July 1. Bristol Assizes. Before Mr. Justice Coleridge.

This was an action for damages for an alleged breach of partnership agreement, and the plaintiff also claimed damages for an alleged libel. The plaintiff was Mr. William Ellery Elebert Anderson, and the defendant was Mr. Frederick Bligh Bond. The defendant denied the breach of the partnership agreement, and said plaintiff, by his absence, had repudiated the agreement. Defendant also denied that the writing complained of was a libel or was capable of being construed as a libel.

Mr. J. A. Hawke, K.C., and Mr. T. W. H. Inskip appeared for plaintiff, and Mr. Croome Johnson for the defendant.

For the plaintiff, Mr. Inskip said that the plaintiff and defendant were partners under an agreement dated September 13, 1911, and the plaintiff brought the action against defendant for refusing to carry out the terms of the partnership agreement, and also claimed damages for libel.

Mr. Hawke said that the defendant had undoubtedly declined to go on with the partnership which existed between him and the plaintiff, and had raised two points in justification. He said that in June, 1913, the plaintiff was absent from work for one day—hardly a justification for breaking off a partnership which was to last for seven years at least, and probably fourteen—and that plaintiff absented himself from August 9, 1913, and onward—but plaintiff went on his holidays on that date, and went at the request of the defendant. Mr. Anderson was now twenty-five years of age. As long ago as 1907 he was articled to an architect at Oxford. Later he went into the office of Mr. J. Cowper, a well-known ecclesiastical architect in London. By the autumn of 1911, Mr. Bond, as his business was increasing, finally suggested to the plaintiff that he should go into partnership with him. Plaintiff was not to put any money into the business, and it was agreed that for two years he should have no share in the profits, but should have a nominal salary of £60 a year. The agreement was for seven years certain, and it was in respect of that period that damages were asked for. It was agreed, counsel stated, that Mr. Anderson was, after the first two years, to have a third of the net profits of the business. In November, 1911, plaintiff joined Mr. Bond at Glastonbury, where Mr. Bond was carrying on his business. He also had an office at Bristol.

On June 25, 1913, Mr. Bond left for a holiday, and told one of the clerks that he was to open all correspondence, and plaintiff was not to see it. The clerk was given the key of the letter-box, and in July there was a stormy interview between the partners. Mr. Anderson was a man who had made himself highly competent, particularly in the draughtsmanship side of his profession.

Mr. Croome Johnson: I make no kind of suggestion against Mr. Anderson.

Mr. Hawke proceeded to state that on October 6 Mr. Bond wrote and sent to various people the following letter: "I beg to give you formal notice that as and from this 6th day of October, 1913, I repudiate all acts, certificates, specifications, quantity measurements, reports, recommendations, and things done or to be done by my partner, Mr. W. Ellery Anderson, in my name or that of the firm." This, argued counsel, could only be taken to

mean that Mr. Anderson had done something improper as a partner which entitled his co-partner to dismiss him from the partnership. Therefore it was a libel, and his client was entitled to damages for it. The defence was merely that it did not mean anything. By the publication of that letter, added Mr. Hawke, his client was prevented from getting work. He did not want the jury to punish Mr. Bond, but he asked for substantial damages to compensate his client.

Plaintiff stated, in evidence, that as a result of the alleged libel he had been unable to get work. Cross-examined, plaintiff stated that in August last he was ill, and in November last he was again in the doctor's hands and was ordered abroad. With the exception of a few days, after October 6, he was laid aside for three months continuously, and probably would not have been able to do any work if the partnership had gone on. There were no serious differences before June, 1913. He did not remember that Mr. Bond complained of the hours he (plaintiff) kept at the partnership premises. He denied that throughout 1913 there had been friction between Mr. Bond and himself. He did not tell Mr. Bond he was willing to dissolve partnership.

Mr. Croome Johnson said with regard to the alleged libel, he submitted it was a document not capable of a defamatory meaning.

Lord Coleridge: That is my present impression.

Mr. Hawke argued that the document meant not only the repudiation of the acts of a partner, but the repudiation of his professional work.

Lord Coleridge replied that it was not capable of a defamatory meaning.

No witnesses were called for the defence.

Mr. Hawke, addressing the jury with regard to the alleged breach of contract, said Mr. Anderson had contributed to the partnership two years of hard work, and argued that he was entitled to substantial damages.

Mr. Croome Johnson contended that it was not likely that the partnership would have gone on for seven years. It was obvious that it was another illustration of what frequently happened—people entering into a partnership for a long term, and then finding that they could not work harmoniously, with the result that, sooner or later, the partnership was discontinued. To give plaintiff an annuity for five years would be unjust to the defendant.

Lord Coleridge, in summing up, said that the case, which had threatened to be a prolonged one, had narrowed down to quite a small compass. The real question for the jury was only a question of damages. Plaintiff estimated the net profits of the business at £600 or £700 a year.

The jury, after an absence of three-quarters of an hour, found for plaintiff and assessed the damages at £550.

Mr. Croome Johnson asked for judgment for defendant, with costs, in regard to the allegation of libel.

His Lordship gave judgment for plaintiff for £550 with costs in regard to the breach of agreement, and as regards the alleged libel judgment for defendant without costs. —(Condensed from the "Bristol Times and Mirror.")

**Claim in Building Contract.***Lucas v. Braikfield.*

July 2. Official Referee's Court. Before Mr. Mackenzie.

This was an action brought by Arthur George Lucas, a builder, of Markham Road, Walthamstow, against Mr. Philip Braikfield, resident at M. Stone Road, Staplehurst, Kent, to recover the sum of £88 18s. 7d., balance of account for building a house at Staplehurst, being for balance under contract £48 18s. 7d. for extra work done outside the contract.

According to counsel's opening statement, there was no formal contract drawn up, the contract upon which the claim was based being only a plan and one or two letters. The parties were brothers-in-law and nothing was done on strict business lines. It was understood that the plaintiff should not build the cottage for profit and the price arranged was £250, for which sum a house was put up worth £500. In addition to the balance left unpaid, the plaintiff claimed for extra work outside the contract, but some of the items which he sought to make up the extra charge were not admitted, while others were in dispute, being within the contract, or on the ground that the charges were excessive for the work done.

After some evidence had been given, the parties arrived at an amicable settlement, the defendant agreeing to pay to the plaintiff the sum of £40 in discharge of the claim.

**What is a "New Building"? Question of By-laws.***Hoare and Co. v. Footscray District Council.*

July 2. King's Bench Division. Before Judge Lawrence and Atkin.

Mr. Poyser moved ex parte on behalf of Hoare and Co., owners of the Seven Stars public-house, Footscray, for an order directed to the Footscray District Council directing them to consider and approve certain building plans.

Mr. Poyser said that under the Public Health Act, Sec. 158, the Council was required to approve of building plans within a month after their delivery, provided that they were all correct. In the case of the Seven Stars certain structural alterations were carried out, an old building being pulled down and re-erected. Plans were sent in in the usual way, together with a mass of detail that the by-laws of the Footscray Council required, and these the Council refused to pass, and only information his clients could get was that the Council had refused to pass them because they did not comply with the by-laws. Every endeavour was made to ascertain what the Council's particular objection was, but without success. His clients proceeded, as they had a right to do, under the Act, to build the premises at this risk—that if it turned out subsequently that in building as they had done they were violating any of the by-laws there were penalties that might be inflicted and there might be an order to pull down the building. His clients could not cover wherein lay the Council's objection to the plans, but eventually the Council took out five summonses against them for building in breach of the by-laws. A number of them were dismissed and others were adjourned and eventually withdrawn. Ultimately they were met with further



summons that charged them with violating the by-laws in not sending in plans of a new building" that they intended to erect and not having them approved. The Council took up the attitude that as his clients were re-erecting part of the house whole had to be treated as a "new building," and that the plans must not contain all that the by-laws required in regard to the new portion intended to be erected, but must contain the same details with regard to the old portions of the building that were to remain standing. The matter came before the local justices, and came to the conclusion that the only "new building" was the portion to be erected and dismissed the summons, but, unfortunately for his clients, a case was set and there was an appeal by the Council to a King's Bench Divisional Court, and that Court took the view that for these circumstances the whole structure became a "new building" within the meaning of the Act, and therefore the clients must give details of the whole. The view of the local Council was in that and upheld.

His clients were compelled to accept that Divisional Court decision, and they had to put in plans to the Council dealing with the old and the new portions, and now the Council had refused to pass these without giving any reason except that they are not in accordance with the by-laws. The Council now said that, as the building was stood, it was a "new building," and his clients had been served with a notice that they had erected a portion of the building in advance of the building line, and they were liable to a penalty of £2 for every day that they did not get rid of that offence.

Under these circumstances, his clients desired their lordships to grant a rule calling on the Footscray Council to show cause why they should not pass the plans that had been submitted to them.

Mr. Justice Lawrence said that Mr. Hoyer could take a rule, but it would be at his clients' own risk.

#### Light and Air : Building Operations.

##### *Hocker v. Shields.*

King's Bench Division. Before Mr. Justice Hoyer.

This was an action by Mrs. Louisa Hocker, of 16, Park Lane, W., for an injunction to restrain Dr. Douglas A. Shields, tenant of 17, Park Lane, for interfering with the light and air of plaintiff's use by building operations. Plaintiff asked for an order calling upon the defendant to pull down what had been built.

Mr. Charles, K.C., and Mr. G. Mears appeared for the plaintiff, and Mr. E. Pollock, K.C., and Mr. D. Hogg for the defendant.

Mr. Charles, in opening the case, said plaintiff held the house on a lease at a rent of £400 a year. The two houses, Nos. 16 and 17, were divided by Brick Street, which was 17 ft. 6 in. wide at its widest part, and 15 ft. 3 in. wide at its narrowest. That part of the defendant's house which adjoined the plaintiff's was for a long time hidden by scaffolding and tarpaulin, and Mrs. Hocker was unable to find out what was being done, but she eventually discovered that two storeys were being added to it. As soon as she found this out she applied for an interim injunction, and this was granted on May 13 last. The work, however, was vigorously continued, and plaintiff said that it would not interfere with the plaintiff's rear windows. She there-

upon got her injunction amended, but, in spite of that, the building went on, the defendant having been told that the work would not interfere with the light and air of the plaintiff's house. The result was that the defendant's house now overtopped the plaintiff's by 17 ft. 6 in. In letters that followed, the defendant said the plaintiff's rooms were darkened by the scaffolding, but that he was going to have the wall painted white. Fourteen windows were affected, and the plaintiff's son had given up the use of the study because of the darkness. In other rooms electric light was used except on very sunny days.

Mr. Howard Chatfield Clarke (Messrs. T. Chatfield Clarke and Son, surveyors and auctioneers, 102, Bishopsgate, E.C.) estimated that the damage done to the plaintiff's house by the additions to the defendant's house was about £500.

Mr. William Arthur Lewis, Mr. William A. Paul, and Mr. Percy J. Waldram, of Buckingham Street, Charing Cross Road, and others gave evidence on behalf of the plaintiff.

Mr. Pollock, for the defendant, admitted that any alterations to the defendant's house would cut off some light, but the fact that the mansard roof had been straightened and that it was now a wall had nothing whatever to do with the question of light. The painting of the defendant's wall was not done to get an advantage over the plaintiff in the case, but to make his house attractive, a thing that was very necessary in a nursing home. Defendant had taken down 1 ft. 2 in. of the wall to try and meet the plaintiff.

Mr. George T. Jell, A.R.I.B.A., of Carlton House, 180, Regent Street, W., said he prepared the plans for the addition, and it was wrong to say that the tarpaulins were put up to conceal the work from the plaintiff. It was for the purpose of carrying the roof and protecting the inside of the house.

Mr. Howard Martin, Messrs. Thurwood and Martin, 27, Chancery Lane, W.C., said the light to the plaintiff's premises was ample. In his opinion, no injury had been caused to the rental value of the house.

Mr. Stephens Chalmers, B.A., an expert on questions of illumination, and Mr. Max Clarke, A.R.I.B.A., gave evidence on the amount of light that was admitted to the plaintiff's premises, and they agreed that it was sufficient for all ordinary purposes and was not materially interfered with by the additions to the defendant's house.

His Lordship, who had inspected the premises, intimated that the case did not appear to be one for an injunction.

Mr. Pollock, said if his lordship decided against the defendant he would prefer to pay damages.

His Lordship, in giving judgment, said he was of opinion that the additions made to the defendant's house were such as to cause a substantial interference with the light and air admitted to the plaintiff's premises and also with its comfortable occupation. The only question to be decided was one of damages. The true rental value of plaintiff's house he put at about £500 a year and the difference made by the building complained of he assessed at 10 per cent., or £50 a year for the remaining ten years of the plaintiff's lease. He also awarded her the costs of the action and of preparing the model.

Replying to Mr. Charles, his Lordship said that he assessed the damages on the obstruction caused by the works already completed, as shown by the plans of the defendant. The judgment was on the

basis of a rental loss of £50 a year, capitalised on the 6 per cent. tables—about £500 in all.

## COMPETITIONS.

### *Federal Parliament House, Australia.*

The Australian Government announces an international architectural competition for the purpose of selecting the architect of the Parliament House, and, possibly, incidentally, an additional architect for other Government structures of the new Federal Capital City, Canberra. Only tentative outline sketch designs for the building are requested, and eight prizes are offered, aggregating £6,000, the first being £2,000, in addition to commission for service on the scale of the R.I.B.A.

The designs may be submitted in either Melbourne or London by the end of March, and will be judged by the following jury of architects, whose decision will be final: George T. Poole, of Australia; Sir John J. Burnet, of London; Victor Laloux, of Paris; Otto Wagner, of Vienna; Louis H. Sullivan, of Chicago.

The programme will be issued to any practising architect on application to the High Commissioner for Australia in London, or any British Ambassador, to whom copies are being forwarded.

### *Technical Schools, Southport.*

The Education Committee of the County Borough of Southport invite architects practising in the United Kingdom to submit designs in competition for new technical schools to be erected on a site, of which a plan is reproduced, situated at the junction of Lord Street and Manchester Road, Southport. Mr. Paul Waterhouse, M.A., F.R.I.B.A., of Staple Inn Buildings, High Holborn, W.C., has been appointed assessor. Premiums of £75, £50, and £25 will be awarded to the authors of the designs placed respectively first, second, and third.

Designs, reports, etc., with the envelope containing the name and address of the author, must be delivered as one parcel, addressed to the Town Clerk, Town Hall, Southport, not later than twelve o'clock noon, October 14, 1914.

The drawings must be accompanied by a concise description of the buildings (type-written), explaining the construction, finish, and materials proposed to be used, and giving such other information as cannot be clearly shown on the drawings, including proposed arrangements for heating, lighting, and ventilation. An estimate of the cost must also be sent applying to each of the below-mentioned schemes, and based on the cubic contents of the buildings measured from the top of the concrete foundations to half way up the roof, and including chimney stacks, turrets, and other features. A detailed statement of the dimensions and working out of the different portions of the buildings will be required, with the prices per foot cube on which the estimate is based, attached. The cost of engineering work, such as heating, ventilation, and lighting, gong for fire alarm, electric bells, etc., should be separately stated and added to the amount of the estimate obtained by cubing the building. (Note that the present building will require an entirely new installation of lighting and heating.) The total estimate should include, besides the engineering works mentioned above, gates, pavings, drainage, water supply, a presentation key value £25, and all permanent fixtures. It must also include the demolition of the old skating rink, and in the



case of the temporary scheme (see later) the cost of adapting and repairing the existing front block together with the formation of a suitable porch or door-surround.

Questions must reach the Town Clerk, Town Hall, Southport, not later than July 31, 1914. All answers which the assessor considers necessary will be sent as soon as possible to each competitor, and such answers will form part of the conditions of competition.

The corporation owns the whole of the land shown by stipple on the accompanying block plan, including the portions hatched with diagonal and vertical shading. The portion hatched vertically at the extreme south-east of the property is still held under lease by the West Lancashire Territorial Association, and is not available for the present scheme. The portion hatched diagonally is held on lease by Messrs. Kiddie and Co. (except the cottage and garden), and is reserved by the corporation for future purposes. Each competitor is desired to indicate a future extension of his building scheme on this portion of the land, and should design his corridors, etc., with that extension in view, but it is suggested that in the ultimate scheme a road, at least 10 ft. wide, should be formed along the south-west boundary of the whole property, thus giving through communication (for heavy goods to the school) from the approach road out of Hoghton Street to the Lord Street frontage, but as Messrs. Kiddie and Co.'s lease does not expire for several years, it will be necessary to provide temporarily or permanently, an approach for goods by means of the road on the north-east side of the present front buildings. The owners of Brunswick Villa and Crown House have rights of light over the land of the corporation with respect to their existing windows. The houses in Manchester Road have no such rights.

The whole of the land shown by stipple and hatching is available for the purposes of the present scheme. The corporation have voted £16,000 for the rebuilding of the back portion of the Glaciarium premises, and for adapting the front building. It is ultimately intended to rebuild the front building, and competitors should submit drawings showing: (1) A preliminary arrangement, with the front building remaining (hereinafter called Scheme A); (2) a final arrangement, with the front building rebuilt (hereinafter called Scheme B). An important consideration is to have a good final arrangement (Scheme B), and if this can be designed so as temporarily to use the front building in a satisfactory manner, such a design will have preference. If, however, an architect considers it inconsistent with the best arrangement to make his Scheme A an instalment of his Scheme B, he is at liberty to submit a Scheme B unrelated to his Scheme A. In such a case the Schemes A and B will be virtually alternatives to one another. The final scheme in any case must provide, in addition to the accommodation shown on the schedule, a large lofty central hall, with a floor area of 2,800 super. feet, and also space for additional accommodation, if required, at some future time.

The approximate number of scholars to be accommodated is: Male, 250; female, 250. The requirements of the Board of Education as regards cloak-room and sanitary accommodation for each sex must be carefully adhered to.

The schedule of accommodation required (figures in brackets denote area in super. feet) is as follows:—

#### Administrative Department.

Examination hall (2,800); school registration office (200); organising master's office (300); book store (100); study, library, and committee room (500); staff room (men) (250); staff room (women) (200); caretaker's room and store; cloak rooms and lavatories (men) (700); ditto (women) (700); large electric service lift; heating chamber; fuel stores; cycle shed; service rooms; space for lockers and exhibition cases.

#### Education Offices.

Public enquiry hall and waiting room (200); general office (850); education secretary's room (300); school attendance officers' room (270); store room (150).

#### Engineering.

Heat and motor engineering laboratory (875); engineering and metal workshop (675); electrical engineering laboratory (875); class room (technology) (500); drawing office (1,125); stores.

#### Building.

Woodworking workshop (1,250); plumbing and electric wiring workshop (750); drawing office (750); stores.

#### Science.

Natural science lecture room and laboratory (900); chemistry laboratory (1,125); physics and mechanics laboratory (750); balance room (180); dark room for photometry (200); chemistry lecture theatre (750); physics and mechanics lecture theatre (500); preparation room (180); cinema chamber; stores.

#### Commercial.

Class room (600); ditto (400); ditto (400); ditto (400); typewriting class room (500).

#### Domestic.

Cookery room (800); laundry room (600); needlework and millinery work (1,000); set of three rooms for housewifery, each 225 sup. ft. (675); stores.

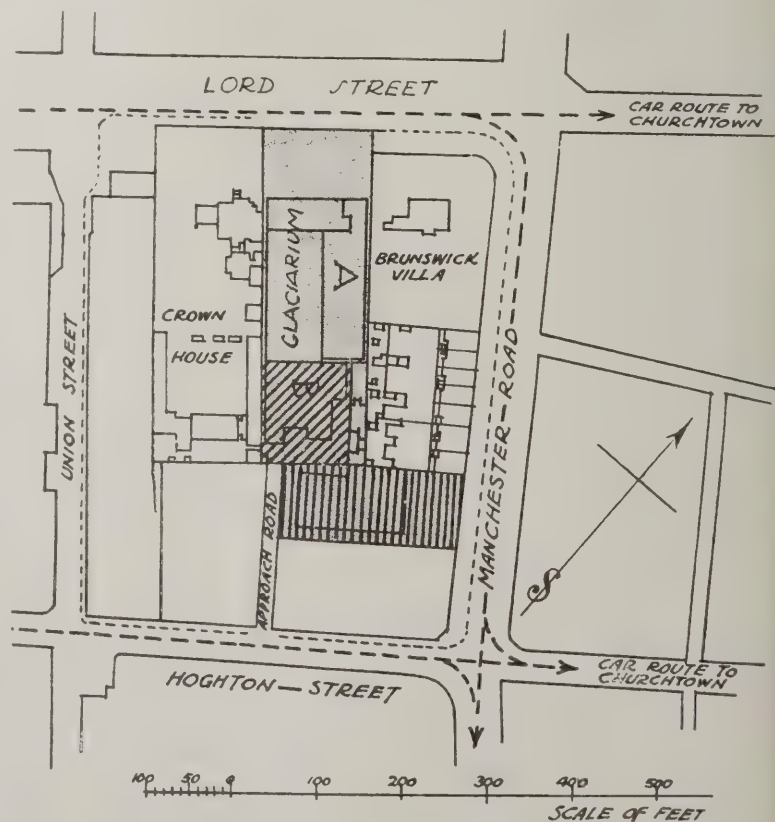
#### School of Art.

Head art master's room (350); second art master's room (250); students' common room and library (350); elementary art room (550); lecture and design room (500); antique studio (600); casting studio (200); modelling studio (500); carving room (150); life drawing studio (400); wood carving and crafts studio (400); broodery, etching, and enamelling studio (300); painters' and decorators' room (700); store, conservatory, and cages.

#### Drawings Required.

All drawings are to be in plain black line (pencil permitted), on sheets of white double-elephant paper, mounted on strainers and without coloured margins. All drawings, except block plans, are to be made to the scale of 16 ft. to 1 inch. The following drawings are required: A plan of each floor of Scheme A (if submitted) and Scheme B showing the latter case the future extension. (Note—The ground floor plan is to show the grounds and surroundings, together with positions of entrances, gates, etc., of the ground, and points of the competition. At least two sections and four elevations. The sections are to show the heating apparatus, which must be above the water, which may be assumed to be below the ground level. A block plan to the scale of 208.33 ft. to one inch. All drawings, other than the alternative Scheme A and Scheme B, are not to be submitted.

The cost of the building will be an important element in determining the competition. Attention is drawn to the fact that none of the elevations, except the Lord Street, will be of public importance. It is suggested that the building should be three storeys in height. The new building need not necessarily be attached to the old building, but must be disposed so as to give a view to present convenience, and ready future rebuilding of the Lord Street frontage.



SOUTHPORT TECHNICAL SCHOOLS COMPETITION: SITE PLAN.



*Planning Scheme, Bradford.*

Bradford City Council propose to invite competitive designs for the replanning of centre of the city. Premiums of £500, £100, and £200 are to be offered.

*Shakespeare Memorial Theatre.*

It is announced that the Committee of Shakespeare Memorial Theatre are, with the assistance of Mr. T. E. Colclutt, F.R.I.B.A., about to select six architects to take part in a competition for the national theatre which it is proposed to erect in London. The first premium, to be given with the commission, will be 500 guineas, and the five unsuccessful competitors will each receive 150 guineas. Further information may be had on application to the Secretary, Shakespeare Memorial Committee, 3a, Dean's Yard, Westminster.

## A. PRIZES AND STUDENTSHIPS.

The awards for the past session were announced at the Architectural Association on Friday afternoon last, and the prizes were distributed by Mr. Herbert Baker, F.R.I.B.A., as follows:—

## LECTURES.

Greek and Roman Architecture, book prize, S. Glover.  
Elementary Physics, book prize, D. S. Glover.  
Elementary Construction, book prize, D. S. Glover.  
Renaissance Architecture, book prize, S. F. in.  
Materials, book prize, M. D. N. Koch.  
Intermediate and Advanced Construction, book prize, A. B. Hamilton.  
Hygiene, book prize, James Burford.  
Timber and Steel Construction, book prize, A. Duncan.

## EVENING SCHOOL.

First Year.—Book prize, R. Brundle.  
Second Year.—"Andrew Oliver Prize," value 10s., E. A. D. Tanner.  
Third Year.—Book prize, R. Braine.  
Fourth Year.—First prize, free pass to new school of Design for one year, J. B. M. Walch.  
Second prize, value £3 3s., R. H. Maddock.

## DAY SCHOOL.

First Year.—Studio prize for best work done throughout the year, value £2 10s., O. Campbell.  
History Examination, book prize, P. M. Hill.  
Construction Examination, book prize, W. B.  
Hand Studies, book prize, A. G. Brian.  
General Progress, book prize, A. S. Whitburn.  
Second Year.—The Association Two-Year Certificate has been awarded to the following students: C. J. Brandon, G. G. Clark, F. C. Day, F. A. Eschawzier, J. H. Hopewell, H. Lloyd, J. L. Murgatroyd, F. Reixa, H. Rein, G. B. Tubbs, F. R. M. Woodhouse, R. C. Wood.

End of Session Test, value £4, G. G. Clark.  
Hand Studies, book prize, G. G. Clark.  
Travelling Studentship (for best work done throughout the year), value £20, F. P. M. Woodhouse.

Second prize, Studentship Competition, value £10, F. A. Eschawzier.  
Howard Colls' Travelling Studentship, specially awarded in second year by the Council, value £15 15s., W. C. von Berg.

Third Year.—Book prizes for best work done in studio during the year: (1.) W. T. Ching; (2.) C. L. Derry; (3.) H. F. Gossling.  
The Jarvis Scholarship (awarded for the best structural sheet prepared in connection with a design subject), value £40, A. B. Milton.

The Day School Travelling Studentship (for best work done throughout the year), value £50, Stanhope Forbes.

Second prize, Studentship Competition, value £10, divided between James Burford and J. H. Hobbs.

A Travelling Studentship, value 25 guineas, specially awarded in third year, R. A. Duncan.

## OTHER PRIZES.

A. Essay prize, value £10 10s., A. S. G. Ler.  
Amster Fletcher Entrance Scholarship to Training School, tenable for two years, value 10 guineas, P. S. Hudson.  
A. Entrance Scholarship to Day School, value 48 guineas, F. W. Thew (Dover College).

A vote of thanks to Mr. Baker was proposed by Mr. Curtis Green, seconded by H. Austen Hall, and carried with acclamation. A large number of drawings were on view from the Students' Section of the recent exhibition of British Architecture in Paris.

## OBITUARY.

*Mr. F. Dare Clapham, F.R.I.B.A.*

We deeply regret to have to record the death of Mr. F. Dare Clapham, F.R.I.B.A. He was killed by a motor-car at Beckenham on Friday morning last. The car is said to belong to Mr. H. E. W. Prest, the Kent cricketer, who was accompanied by Mr. G. N. Foster, the Worcestershire amateur, when the accident happened. Mr. Prest's chauffeur was driving at the time.

Mr. Clapham was only forty-one years of age, having been born in 1873. He was educated at Brentwood School, Essex, and he received his architectural training at the R.A. and A.A. Schools. He served his articles with Mr. E. J. May, F.R.I.B.A., and began practice on his own account in London in 1901. He was a Silver Medallist of the A.A., and gained a special prize in the R.I.B.A. Final in 1901. A little later he joined in partnership with the late Mr. E. W. Mountford, with whom he was jointly responsible for Lancaster Town Hall and Fire Station. His own more important works include alterations



THE LATE MR. F. DARE CLAPHAM,  
F.R.I.B.A.

and additions to Battersea Polytechnic, a library at Battersea Polytechnic for Mr. Edwin Tate, and an imposing mausoleum in Putney Vale Cemetery.

The death of Mr. Clapham will come as a sad blow to the A.A., with whose work he had been intimately associated for many years. He had served as a Member of Council and was Vice-President 1909-10. He always took a prominent part in the A.A. play, and was an actor of very considerable ability, as those who had the pleasure of seeing, for instance, his "Calli-crates" (1909) and "Ariba the First Architect" (1910), will remember. Mr. Clapham also took a great interest in the more serious work of the A.A. He was a regular attendant at the fortnightly ordinary general meetings, and invariably joined in the discussions. He prepared and read a number of delightful papers himself, all of which were characterised by keen penetration and a ready wit.

*Mr. John Unthank Braithwaite.*

The death occurred on July 16 of Mr. John Unthank Braithwaite, at 11, South Parade, York. He had been in the service of the North-Eastern Railway Com-

pany for between four and five decades. Mr. Braithwaite was the son of a wool merchant, and served his articles with Mr. G. G. Hoskins, F.R.I.B.A., of Darlington. Later, he joined the service of the North-Eastern Railway Company at Newcastle, under Mr. Thomas Prosser, and shortly after the attainment of his majority was transferred to York under the late Mr. Benjamin Burleigh and Mr. William Bell during the building of York Railway Station. Under Mr. Bell he was engaged on some of the most important works of the company, including the erection of the Sunderland and Darlington Stations. In his earlier days he was a member of the Yorkshire Architectural Society.

## WHO'S WHO IN ARCHITECTURE.

Registration is at length an accomplished fact; for in "Who's Who in Architecture" we have, for the first time, a comprehensive list of authentic architects whose definite claims to that proud title no man dare dispute. In a sense, therefore, the book, as being the first of its kind, and as anticipating—by how long a period none can tell—the official muster-roll, which is still but little more than a vague aspiration, makes history.

Moreover, it records history, or, at all events, gathers together, also for the first time, a rich collection of materials for it. Nor does it merely bring together into one volume, in strictly alphabetical array, the names and addresses of the members of the various architectural societies.

From a professional and business point of view it would possess considerable value as a directory if it did no more than that. But it is vastly superior to a mere collection of names and addresses. In the great majority of cases it gives a concise record of the architect's career—tells when he was born, where he was educated, to whom he was articled, when and where he began to practise, what architectural distinctions he may have won in the schools, his successes in competitions, a list of his publications if he has "commenced author," and a list of his principal works in brick, in stone, or peradventure in reinforced concrete, or, again, his adventures in town-planning.

All this varied information is of obvious utility. It gives the book an unquestionable business value to all who are in any way associated with architecture, or who wish to get into touch with architects. But the volume has also a more strictly professional as well as an alluring personal interest. It affords the first comprehensive survey of what living architects have done, and shows what training they have undergone in equipping themselves for the work.

From the particulars given it would be possible to deduce many interesting generalisations—for instance, as to the educational and social standing of the profession at large; as to the proportionate number of architects who might conceivably have been helped towards professional success by the social standing that seems to be implied by public school and university education, as compared with those who have less obvious advantages but have nevertheless made their way; as to whether or not the winning of distinctions in the architectural schools is commonly followed by a corresponding success professionally; as to whether the pupils of leading architects are generally more certain of a successful career than those who were articled to the bearers of less well-known names, or were perhaps not articled at all; as to which schools, or what



schemes of professional training, are apparently prolific of the best results; as to the proportion of those who are versatile "general practitioners," ready "to go anywhere and do anything," as compared with those who specialise; and so forth, to the suggestion of many other interesting inferences.

Personal interest is always fascinating, and this volume gives it in abundance; for it contains 252 pages of terse autobiography, and is therefore more than a supremely useful and (in its subject) quite unique work of reference. Open it anywhere, and one can instantly gratify a natural and surely innocent and legitimate curiosity as to the *personalia* of the profession, and as to who among one's contemporaries is responsible for the great bulk of the current work that, without the aid of this book, could not easily be attributed to its authors. Hence, "Who's Who in Architecture" is not merely useful for occasional consultation as a kind of amplified directory; to the architect keenly interested in his profession and in the personality of his *confrères* it will be an unfailing source of interesting personal and professional information, to which he will recur again and again with the certainty of always lighting upon some item that will well repay the attention. As an indication of the comprehensive character of the work, it may be noted that three lady architects are included—namely, the Misses Bessie Ada and Ethel Mary Charles, A.A.R.I.B.A., and Miss Annie Hall, M.S.A., but they have not given full particulars of their careers.

At the end of the book, enhancing and completing its value as a comprehensive survey of professional activities, sixty-six pages are devoted to a series of compact digests of the courses of study pursued at the various schools of architecture, and to a succinct statement of the aims, objects, and constitution of the various architectural and kindred institutions. The volume is printed in very legible type, and is strongly bound in flexible leather covers, elegantly lettered in gilt, and having rounded corners.

"Who's Who in Architecture." Giving Brief Biographies and Other Useful Particulars of Architects Practising in the United Kingdom, 1914. Pages viii. + 338, 7½ ins. by 5½ ins. Technical Journals, Ltd., Caxton House, Westminster. Price 10s. 6d. net.

## TRADE AND CRAFT.

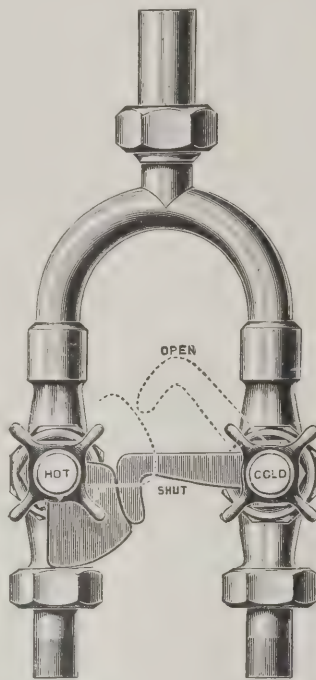
### *Some Sanitary Specialities.*

In the introduction to their handsome supplementary catalogue entitled "Some Sanitary Specialities," Messrs. A. Emanuel and Sons, Ltd., 7, 9, 11, 13, George Street, Manchester Square, London, W., use a felicitous and suggestive phrase in claiming that the work embodies "many new ideas in sanitary specialities, modelled on lines of perfect sanitation." When the great Early Victorian movement which placed this country in the forefront of sanitary reform was being almost passionately promoted by such men as Simon and Playfair, but little account was, or could be, taken of mere elegance. Sheer sanitation was the object; but when system was at length perfected, thought and energy were set free for considerations of refinement and embellishment.

How far we have gone in these directions is shown in Messrs. Emanuel's catalogue, which represents the best that is being done, not merely in the science, but also in what may be legitimately termed the art of sanitation. In materials, in forms, and in such decorative features as are admis-

sible in this class of work, there is shown a nice adaptation of treatment to subject, the lavatories, baths, closets, and accessories each and all conforming and responding, in appearance as well as in fact, to the highest ideals of sanitary efficiency.

All the baths have a most inviting appearance, and to select any for special commendation on this score is to do an injustice to the others. It is obviously impossible, however, to mention more than two or three of the forty or more designs



EMANUEL'S PATENT SHOWER-BATH JUNCTION VALVES.

shown in the catalogue. Striking, no less by its comely shape than by its compactness and its assurance of comfort, not to say luxury, is the plunge spray and shower bath, with parallel-sided cast-iron plunge bath, white porcelain-enamelled inside and on roll, white stove-enamelled outside, fitted with white enamelled zinc screen arranged for spray and shower, with 9-in. copper rolls. Its fittings include hot and cold half-turn screw-down supply valves, large mixing-box and dial valves, mushroom inlet to plunge, 2-in brass fullway quick waste and overflow combined, with brass tap above floor line and quadrant waste-pull. All the supply pipes and the standing waste are covered by movable enclosure, and all exposed fittings are nickel-plated. Other baths that attract particular attention as one turns over the pages of the catalogue are: The "Lowdown" rolled-edge fireclay bath, which, besides being of seductive shape, admits of easy cleaning; the "Modern Asylums" bath, Colchester pattern, with safety roll, parallel-sided, cast-iron, porcelain-enamelled inside and on roll, painted outside and containing a portable oiled-teak couch with back, arm, foot rest, and fitted up with up-to-date hygienic accessories; and the last specimen of the baths proper that space will allow us to mention is a very shapely cast-iron bath, with 4-in. roll, flat bottom, porcelain-enamelled inside, painted outside—an excellent bath of moderate price.

A useful washing fitting for special use after football and similar sports is the "Fraser"—a combination leg and foot bath and lavatory in one piece. By resting the foot on the sloping back, the leg

and foot can be washed by the water discharged from a half-turn bibcock with ebony lever, the waste water emptying itself through the central opening in the weir into the basin and thence to a channel in the floor. A continuous supply of water can be obtained for washing hands and face, the water passing away while being used. These lavatories, eminently suitable for sports clubs, schools and institutions, are made in ranges fixing on a brick base. Other lavatories single and in ranges, open or enclosed cabinets, are shown in such profusion to meet almost all requirements, general or special. Among them is an oblong lavatory, with sanitary mouldings, which has at the back a sunk tray for soap and brush, modelled to drain quickly into the outlet in the centre of the tray instead into the basin.

Sinks of various materials and for every purpose make up a large section of the catalogue, and include many improved designs, and the same observations apply to the closets, among which may be noticed the "Marabon" patent combination syphonic closet, which with its 10 in. by 6 in. water surface is particularly suitable for medical uses. It is shown in the catalogue with a two-gallon mahogany enclosed low-flush cistern, silent-filling lead-lined, with copper fittings. The patent cistern, which is approved by the Metropolitan Water Board, gives an efficient flush, does not easily get out of order and can be fixed in any position, but is specially suitable where lack of ceiling height or the position of the windows precludes the use of the ordinary cistern.

Many accessories are included in the catalogue, which contains also some illustrations of the firm's art metalwork designs.

The accompanying illustration shows Emanuel's patent shower-bath junction valves, with hot and cold ¾-in. half-turn screwdown valves, fitted with patent interlocking gear to prevent hot water being turned on first, and also to prevent the closing of the cold valve while the hot is open. The arrangement, it will be seen, is simple and effective.

### *Electric-light Fitting Designs.*

On p. xix. of the current issue, Messrs. H. W. Cashmore and Co. show a number of artistically designed electric-light fittings. The various pendants, etc., the illustrated have been selected from the firm's stock designs (copyright), and the elegant taste they evince will doubtless be a strong incentive to apply for the fittings in the catalogue, which may be obtained from Messrs. Cashmore's head office and showrooms, 96, Victoria Street, London, S.W.

### *School, Halifax.*

Plans for an elementary school for 2 girls, in connection with Holy Trinity Church, Halifax, and intended to be erected in West Parade, have been approved by the Board of Education and by the Local Education Committee. The architect is Mr. Lister Coates, A.R.I.B.A., of Central Chambers, Halifax.

### *Building Regulations for Elementary Schools.*

New Building Regulations for Public Elementary Schools, to come into force from September 1, 1914, have been issued by the Board of Education, and are published by Wyman and Sons, Ltd., 2, Bream's Buildings, Fetter Lane, E.C. price 2½d.



# Cashmore & Co.'s Electric Light Fittings.

Fittings illustrated on this page are a selection of our Stock Designs.

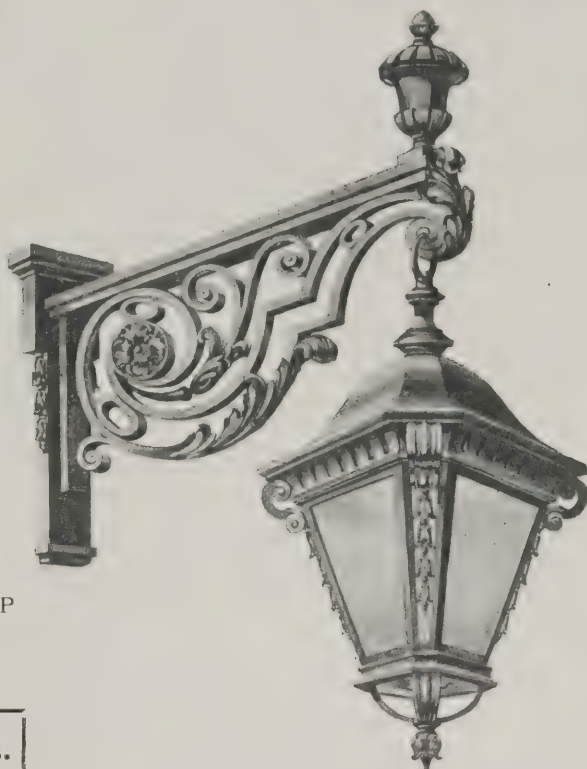
Full Catalogue (Priced) on Application.



E2.—PENDANT, 6-light. Spread 24 in. Drop 2 ft. 2 in.



E8.—1-lt. DROP PENDANT.



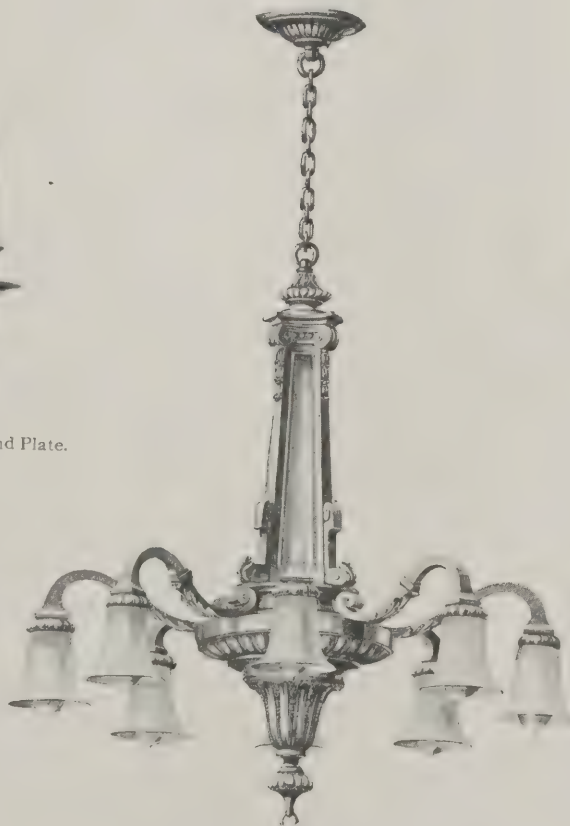
E4.—IRON BRACKET LAMP.  
Projection 1 ft. 9 in., Plate 14 in. by 4 in.



E23.—4-lt. PENDANT.  
Spread 15 in., Length 3 ft. 6 in., including Chain and Plate.



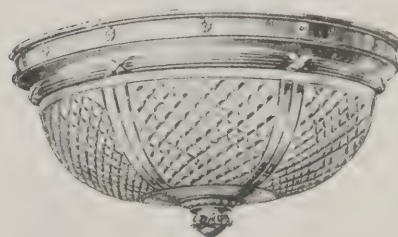
E3.—4-lt. PENDANT.  
Spread 12 in., Length 3 ft. 6 in., with Plate and Chain.



E6.—8-lt. PENDANT.  
Spread 2 ft. 6 in., Drop 4 ft. 4 in., with Chain and Plate.



E7.—CEILING PENDANT  
17 in. Diameter, Drop 18 in.



E5.—CEILING FITTING.  
17 in. Diameter.

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## ELECTRICAL NOTES.

*Air-washing and Cooling.*

We have received particulars from Messrs. Ozonair, Ltd., of 96, Victoria Street, S.W., of a new system of air-washing and cooling which should have many possibilities both in temperate and tropical climates. The cooling of air, in particular, has presented certain difficulties up to the present, because it has been necessary to rely almost entirely on refrigeration plants. Cooling by water, on the other hand, has been what might be called a by-product of air-washing; that is to say, water has been used for air-filters and, incidentally, part of the heat of the air has been abstracted by the water. The Ozonair system relies not only on the cooling effect of the water itself, but also on the principle of evaporation for abstracting heat from the air. Its principle is based on the design of a special patent water-atomising sprayer, which breaks up the water into a fine cloud or vapour. The air is thereby washed of all impurities, floating and in solution, and the evaporation produced is instrumental in causing a considerable fall in temperature, quite apart from that caused by the cooling effect of the water.

The makers claim that by this system it is possible to reduce the temperature of air to that of the cooling water by using less than one gallon of water per hour for every five cubic feet of air per minute up to about 1,000 cubic feet of air per minute. For larger volumes the amount of water may be less, depending on circumstances. Apart from the pressure fan for forcing the air into the building or other place, the plant comprises only a cooling cubicle

or chamber through which the air passes, together with the necessary number of sprayers, with their interconnecting pipe-work. The chamber may be built of brickwork lined with waterproof concrete, or of reinforced concrete, or wood rendered waterproof and tight. The size of the chamber varies almost directly with the volume of air to be cooled, but on the average it amounts to 3 sq. ft. for every 100 cubic ft. of air to be cooled per minute by 12 ft. height, so that a plant to cool 5,000 cubic ft. of air per minute will require a floor space of about 150 sq. ft.

The sprayers require a pressure of 30 lb. to the square inch and can usually, therefore, be worked off the town mains. Where there is no public water supply a small electrically driven pump connected to a river or well is sufficient to give the necessary pressure—or any other form of prime mover for the pump may be used. The system should be of value in this country for conditioning the air in mills of various kinds and also for use with turbo-generators. In tropical countries its use would be much more extensive, namely, for public buildings, theatres, factories, mines, etc.

*Calorite Electric Stove.*

Of the number of electric cooking stoves and heaters there appears to be no end. Under the above name a neat and useful appliance has been put on the market by the British Thomson-Houston Co., Ltd., of a size and shape which render it practical to householders for small cooking operations. The stove is constructed of materials which will readily resist heat, moisture, or grease, and consists of an annealed casting with a machined face  $6\frac{1}{2}$  in. square. This casting is clamped to a cast-iron

frame with four splayed legs, the feet of which are fitted with insulators, for the purpose of preventing the heat spread to the article on which the stove is placed and damaging it. The heating element is composed of "calorite" metal, which is claimed to withstand oxidation up to a point several hundred degrees higher than other resistance alloys. It has twice the resistance of nickel silver, and melts at about 2,800 deg. F. A long sheath of metal protects the terminals from damage due to the boiling over of liquids, and the user from accidental contact with the parts. Starting with the stove cold, a pint of cold water can be boiled in eight minutes, or, starting hot, in five minutes. The apparatus takes 1 kilowatt—i.e. unit per hour.

*London City and Electric Lighting.*

Counsel have been consulted with reference to the powers of the Corporation to purchase so much of the undertaking of the City of London and Charing Cross Electric Light Companies as relates to the City. The late Mr. Danckwerts, K.C., and the Law Officers of the Corporation were of opinion that the power to purchase could be exercised during the six months following August 18 next, or, if not then exercised, within the six months following August 18, 1924. On the other hand, Mr. Robert Finlay, K.C., Mr. Cave, K.C., and Mr. Tyldesley Jones, whom the Corporation consulted, held that the Corporation would have no right to purchase the undertaking if it failed to take the necessary steps within six months from August 18 next. The Corporation have been advised by their Streets Committee that it is incumbent on them to exercise the powers either this year or next.



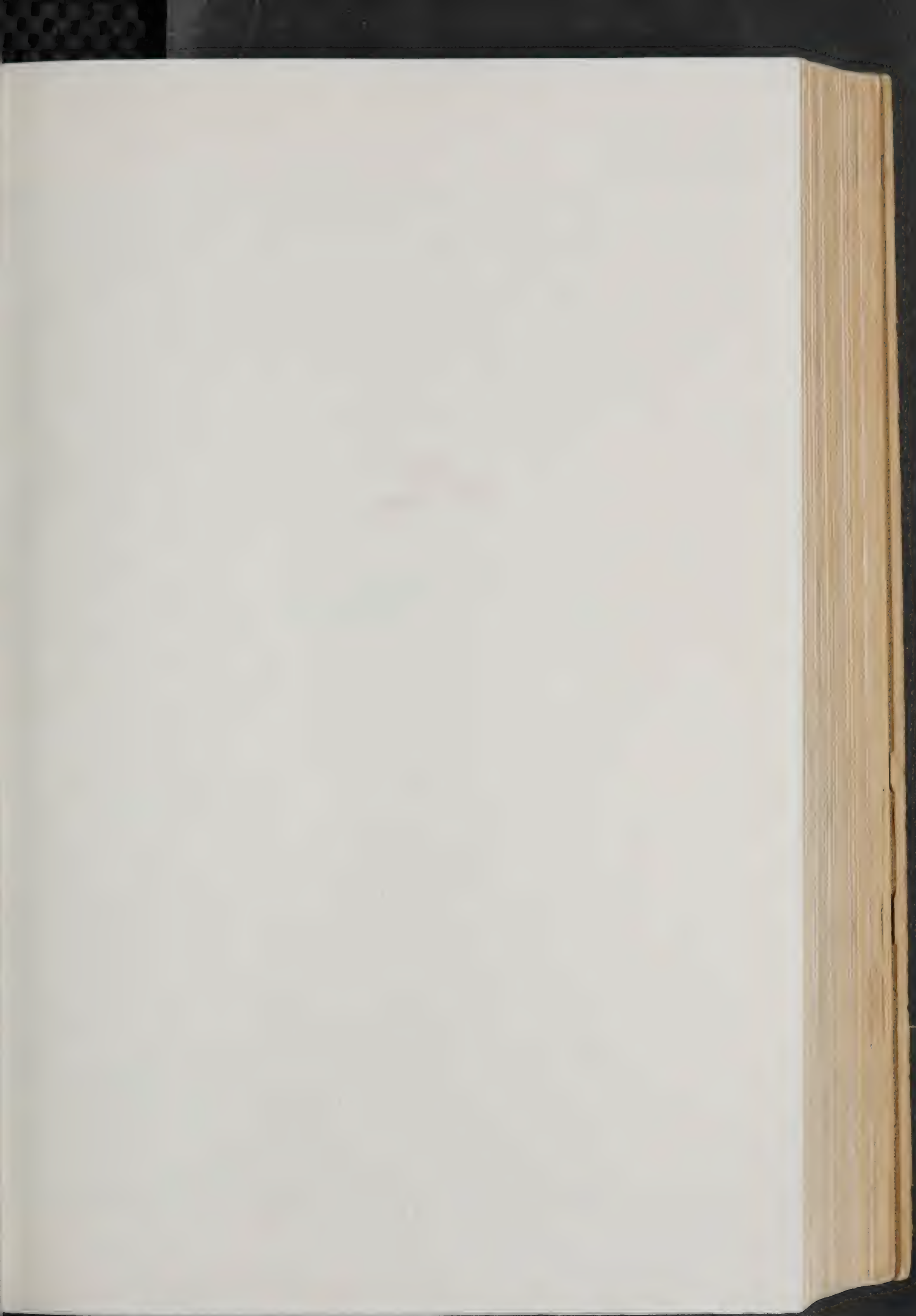
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THE PALAIS DE JUSTICE, BRUSSELS. VII —THE MAIN ENTRANCE AND THE TOWER.

J. POELAERT, ARCHITECT.

(From a Water-colour Drawing by William Walcott.)









VASES. VI.—LOUIS XIV. VASE ON THE TERRACE, VERSAILLES.









SMALL HOUSES OF THE LATE GEORGIAN PERIOD. XIX.—LINDEN HOUSE, THE MALL, HAMMERSMITH, LONDON.









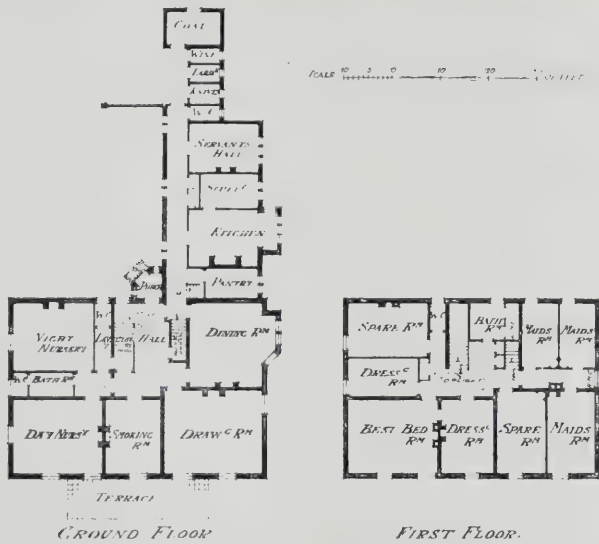
STUDENTS' DRAWINGS. XXV.—ORDER FROM THE BASILICA ÆMILIA, ROME.

BY ERNEST HÉBRARD (GRAND PRIX DE ROME).







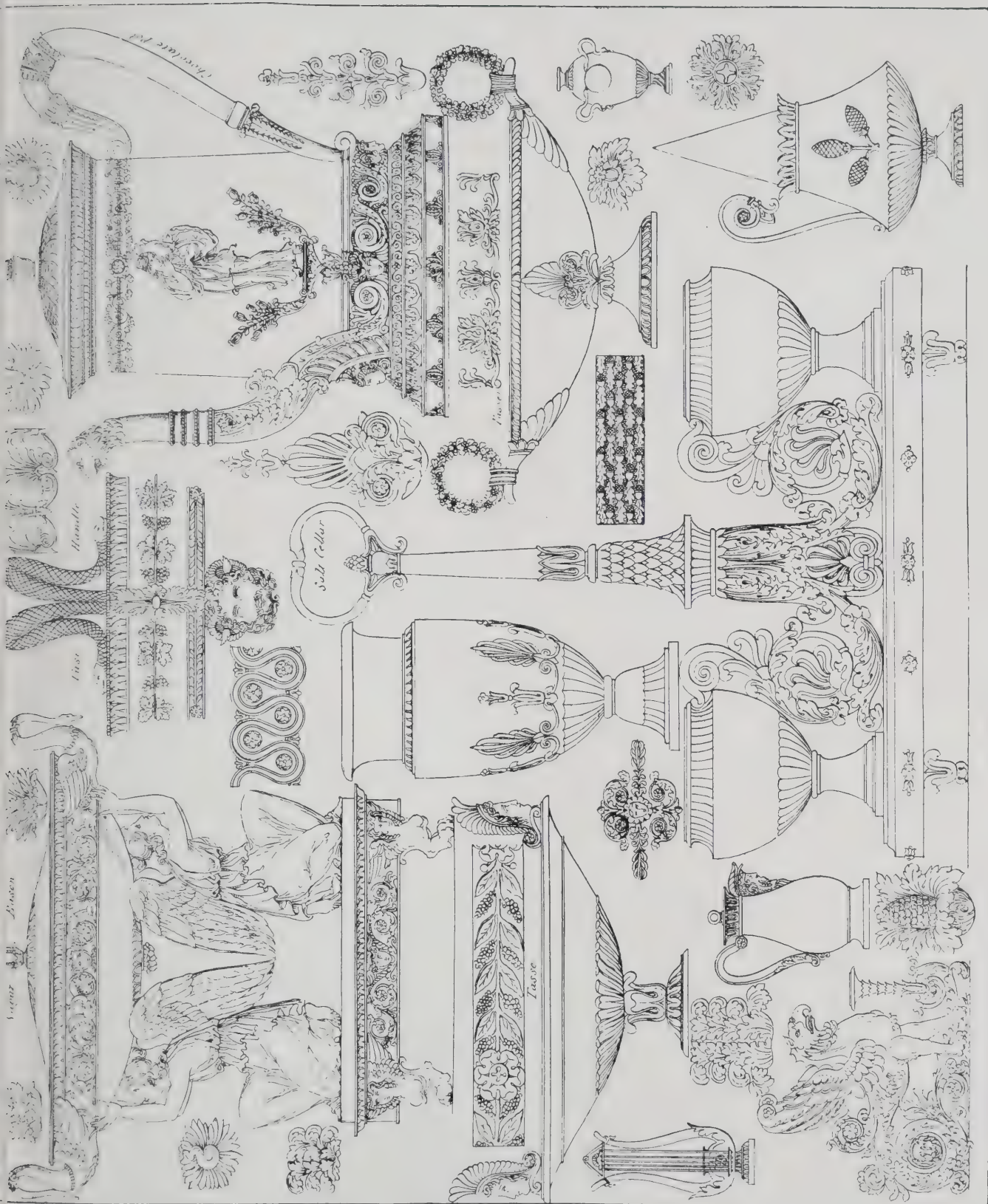


MODERN DOMESTIC ARCHITECTURE. XXVIII.—HOUSE AT DENHAM, BUCKS.  
FRANCIS BACON, ARCHITECT.









COTTINGHAM'S DESIGNS FOR IRONWORK. XIX.—SILVER PLATE AND SUNDRY SPECIMENS OF ORNAMENT.







FOR SCHEMES PREPARED BY OWNERS AND PROPOSED TO BE ADOPTED BY LOCAL AUTHORITIES IN ENGLAND AND WALES UNDER THE HOUSING, TOWN PLANNING, &c., ACT, 1909.

Showing the Detailed Steps of the Various Stages in the Promotion of such Schemes in Accordance with the Town Planning Procedure Regulations (England and Wales), 1910. Compiled by R. IVESON DENHAM, Assistant Solicitor to the Corporation of Huddersfield, and L. ST. G. WILKINSON, M.Sc., A.M.I.C.E., an Assistant Engineer to the Corporation of Huddersfield.

ABBREVIATIONS.—L.A. = Local Authority. L.G.B. = Local Government Board. C.C. = County Council. Article or Act = The Articles of the Town Planning Procedure Regulations (England and Wales), 1910. Act of 1909 = The Housing, Town Planning, &c., Act, 1909. Scheme = An Owner's Scheme proposed to be Adopted by an L.A. under the Act of 1909. Authorities for the various Steps appear in Square Brackets and Cross References to the various Columns appear in Round Brackets.

| No. and Nature of Stage.                         | Resolutions of L.A.                                                                                                                                                                                                                                                                                                                                                                                            | Meetings and Conferences.                                                                                                                                                                                                                                                                                  |               | Maps and Documents Deposited for Public Inspection. | Information to be Furnished to L.G.B. by Clerk to L.A.                                                                                                               |                                                                                                                                                                                                                                                                                                                                   | Action by L.G.B.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|--------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-----------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                | Nature.                                                                                                                                                                                                                                                                                                    | How Summoned. |                                                     | Prepared by Surveyor.                                                                                                                                                | Prepared by Clerk to L.A.                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Column 1.                                        | Column 2.                                                                                                                                                                                                                                                                                                                                                                                                      | Column 3.                                                                                                                                                                                                                                                                                                  | Column 4A.    | Column 4B.                                          | Column 5.                                                                                                                                                            | Column 6A.                                                                                                                                                                                                                                                                                                                        | Column 7.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| STAGE 7.<br>L.G.B.'s decision to approve scheme. | On receipt of Draft Order by L.G.B. approving scheme resolution to be passed approving Town Planning Committee's action in taking steps under Art. xxv. (a), (b) and (c), and if circumstances require authorising Town Planning Committee to take steps to object to scheme under Art. xxvi.<br>[Arts. xxv. and xxvi.]<br>NOTE.—It is highly improbable that the circumstances above referred to would arise. | Within FOURTEEN DAYS from receipt of Draft Order from L.G.B. advertise in Local Paper that L.G.B. intend to approve scheme and propose after receipt of paper containing the advertisement to publish notice in 'London Gazette' as set out in Art. xxv. (a).<br>[Art. xxv. (a). Sect. 54 (4) Act of 1909] |               |                                                     | For TWENTY-ONE DAYS from date of publication by L.G.B. in the "London Gazette" deposit Draft Order for free inspection by any persons interested.<br>[Art. xxv. (c)] | (a) Immediately after publication of advertisement (see Stage 7, Col. 3) in Local Paper send copy of paper to L.G.B.<br>[Art. xxv. (b)]<br>(b) Within TWENTY-ONE DAYS of publication of notice in 'London Gazette' send L.A.'s objections to scheme (if any). (See Stage 7, Col. 2.)<br>[Art. xxvi. and Sect. 54 (4) Act of 1909] | (a) After receipt of copy of paper containing advertisement (see Stage 7, Col. 6B). L.G.B. inserts advertisement in 'London Gazette'.<br>[Art. xxv. (a) and Sect. 54 (4) Act of 1909]<br>(b) If L.G.B. receive any objections under Art. xxvi, the L.G.B. lays its Draft Order before each House of Parliament for THIRTY DAYS of Session, and if either House during that time presents an Address to His Majesty against the Draft Order no further proceedings will be taken with regard to the scheme<br>[Art. xxvi. and Sect. 54 (4) Act of 1909]<br>(c) If the scheme contains provisions suspending any enactment contained in a Public General Act the L.G.B. lays a draft of the scheme before each House of Parliament for FORTY DAYS of Session, and if either House during that period presents an Address to His Majesty against such suspension no further proceedings will be taken on the Draft Scheme.<br>[Sect. 55 (2) Act of 1909]<br>(d) If no objections or no Address, L.G.B. approve scheme and send order approving scheme to L.A.<br>[Art. xxvii. (a)] |

CHART OF TOWN PLANNING PROCEDURE FOR OWNERS' SCHEMES, TO BE ADOPTED BY LOCAL AUTHORITIES—STAGE 7.







THE  
ARCHITECTS' & BUILDERS'  
JOURNAL.

Wednesday, July 29, 1914.

Volume XL. No. 1021.

No. 95.



*(From Piranesi.)*



# THE ARCHITECTS' & BUILDERS' JOURNAL.

JULY 29, 1914.

CAXTON HOUSE, WESTMINSTER.

VOLUME 40. No. 1021.

## EDITORIAL.

WHAT will be known in legal history as "the Lumsden case" came to a most lame and unsatisfactory conclusion in the House of Lords on Monday, July 21, the court of four being equally divided in favour of and against the appeal. A brief restatement of the facts will be useful. In 1912, Mr. R. J. Lumsden, a Newcastle builder, appealed to the Official Referee against an assessment of increment value duty amounting to £25 on an alleged gross increment of £125 arising from the sale of a house-and-shop on a building estate. It was decided by the Referee that the duty was not payable, but certain points of law were reserved, and in January, 1913, these were decided against the builder by Mr. Justice Horridge, sitting in the King's Bench Division. Divested of the legal phraseology in which it has been enmeshed, the simple issue was whether or not the Crown was justified in considering that, the building having been sold at an advantage to the builder, the excess was site value; the builder's case being that, the site not having risen in value, no increment duty was payable, the profit being due to other causes than those contemplated by the Act, the intention of which was only to place a tax on land when there had been a real rise in its value.

On August 1, 1913, the case went to appeal, when the Master of the Rolls and Lord Justice Kennedy agreed that, "having to interpret the statute before them, and not to criticise its terms," the decision of Mr. Justice Horridge must be upheld; but Lord Justice Swinfen Eady dissented, saying he could find no justification in the statute for the contention that wherever the price realised is greater than would have been reasonably expected, the whole of the excess in price is to be deemed to be an increment in site value—a view which a cynic would hold to be too good as plain common sense to hold good in law; the task of proving triumphantly that what was obviously intended as a tax on land was in effect a tax on industry being, one suspects, entirely congenial to the legal mind. Not subtlety, but simplicity, however, was claimed by the Lord Chancellor in the course of his judgment delivered in the House of Lords last week.

It was no doubt true, he said, that "there were cases of construction where the natural meaning of the words of a statute was rejected and another meaning not expressed by the words taken in their ordinary sense was read in. That occurred where the context and scheme of the statute required that this should be done in order that the language of the statute as a whole might be read as consistent. But a mere conjecture that Parliament entertained a purpose which, however natural, had not been embodied in the words it had used if they were literally interpreted, was not sufficient

reason for departing from the literal interpretation. Lord Moulton, however, who, with Lord Parmoor, took a different view from that adopted by the Lord Chancellor and shared by Lord Shaw of Dunelm, riddled with ridicule the Crown interpretation of the Act, in which there are clear and repeated professions that the duty it imposes is a tax on the increment of site value.

As the Lord Chancellor and Lord Shaw came to opposite conclusions from those of Lord Moulton and Lord Parmoor, the appeal was dismissed without a majority. At once the question arises, why was the court constituted as to render such a result easy and probable? Not that odd numbers would have made a result absolutely impossible, because the odd man might have been taken ill, or from some other cause have remained neutral; but the chances of an indeterminate issue greatly enhanced with an even number of law lords to try it. Hitherto we had looked to the House of Lords for finality, if not for infallibility, in litigation that is fought out, at ruinous expense, to the bitter end, and it is something of a shock to find that not even the highest tribunal can decide by a majority. It is anticipated. There is, however, some consolation in supposing that this striking division of opinion may yet serve a good purpose in emphasising the need for amendment of the Finance Act, 1910, under which this litigation has arisen; but that must be a poor consolation to Mr. Lumsden, who, in the interests of the building industry, and in vindication of a principle so courageously carried the case from court to court. His triumph will come when at length the Act is modified as to free the industry at once and for ever from the great injustice against which he has pluckily and persistently fought in the public interest. He has, at any rate, immortalised his name, and has the further satisfaction of having well and truly laid the foundation of an amended Act; but one could wish for him a more substantial reward.

The Board of Education have issued a White Paper containing building regulations for public elementary schools, and setting forth "principles to be observed in planning and fitting up new buildings in England." In a prefatory note the Board state that, "while considering educational advantages they do not ignore the effect of beauty of design, material, or decoration on the minds of the children or of their parents, and that respect for and belief in education are essential to progress; but on the other hand the Board have taken account of the present state of public opinion, and while endeavouring to influence this in the direction which they believe to be beneficial to the nation they cannot ignore the risk of provoking reaction. Some degree of compromise is therefore inevitable. We take this to mean, broadly, that in the Board's



on the public will tolerate a certain expenditure architectural improvements in elementary schools, that beyond this limit they will cry out that national efficiency is being sacrificed. It is, fortunately, true that this is what the so-called "practical educationist" of to-day is most likely to do. He takes the view that money spent on building new is withdrawn from teaching and administration. He is not yet really convinced of the educational value of attractive architecture.

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principles laid down by the Board of Education are the main commonsense enough. The first is the careful choice of a site, which should not be exposed to noise or dust from streets, railways, etc., and should have its class rooms on a side away from the street. In towns, proximity to a public park or open ground is recommended. The site should be sufficiently large to allow all the rooms to be on the ground floor, and in no case is it desirable that the building should consist of more than two floors. A flat roof on the roof is recommended when the site is very expensive. Shower or spray baths for schools should be considered where there is a difficulty in "providing facilities for cleansing children otherwise." So far so good. But great stress is laid on the necessity of economy in the style and general treatment of the building, and subsequent paragraphs relating to the specification of schemes on the score of expenditure give no hint that the "amenities" are to be considered as more than they have been hitherto. We are afraid the prefatory reference to the effect of beauty of design, and so forth, on children and their parents was much more than a pious expression of opinion. The Board are not yet prepared to translate into practice.

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that very much greater care is now being bestowed on the production of working drawings is made manifest in the series current in this Journal. From it is evident that while, thanks largely to French and American example, such drawings are now rendered quite attractive to the eye, practical utility has been, nevertheless, kept in view as the first consideration; and, indeed, it is quite obvious that this utility is greatly helped by the definite and accurate drawing of forms which architects were formerly too often content to indicate so sketchily as to make the drawings hideous to look at and difficult to interpret. Not that the rough-and-ready style saved the architect a great deal of time at the outset; but, on the other hand, it was never really done with it until the work itself was finished. Until then, the ugly and careless drawing wasted the time and temper of everybody who was condemned to handle it, including the architect himself, who expended much more time in correcting it than would have been necessary to make a satisfactory explanatory drawing in the first instance. It may be reasonably supposed, therefore, that when the designer's rough sketches are translated into accurate and lucid draughtsmanship, there is ultimately a net saving in economy. A practical people like the Americans would hardly favour this system merely because its end was goodly to look upon.

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the half-yearly general meeting of the National Federation of Building Trades Employers of Great Britain and Ireland, which is being held at the South Wales Institute of Engineers, Park Place, Cardiff, on July 29, the most important question for consideration will be that of a general lock-out in support of the London Master Builders' Association, which is quite superfluous to say that the decision of the meeting on this momentous point is awaited with some interest, not to say anxiety. Other subjects stand out prominently in the agenda are—Recom-

mendations on the Revenue Bill; a motion by the Yorkshire Federation to the effect that Government sanction to housing schemes should be made conditional on the works being carried out by private contractors after open competition; motions on the National Insurance Act, one, from the Yorkshire Federation, suggesting that the cost of accident, health, and unemployment benefits should be borne, not by individual industries, but by taxpayers in general; and another, from the Midland Centre, to somewhat similar effect. The programme includes a visit to Cardiff Castle and a trip by steamer to Ilfracombe. Clearly the summer meeting is not altogether divested of its usual holiday character, in spite of the gravity of the chief business on hand.

\* \* \* \* \*

Last week we mildly deprecated the wording of a card, entitled "Registrar's Message and Souvenir," which was distributed broadcast—there was, we believe, a copy on every seat—at the Architectural Association prize-giving. It will now be seen, from a letter appearing on p. 82 of the present issue, that the card was printed and circulated by students as the first instalment of a rather elaborately designed practical joke, of which the complementary and explanatory portion was suppressed on the students being made aware of the recent death of a member of the Council. Naturally enough in the circumstances everyone present took the "Message" quite seriously. No other view of it seemed possible, and our observations upon it were written under the misapprehension, shared, as our contrite correspondent admits, "by everyone present," that the specious but spurious "Message" was genuine; whereas, as we have been since informed, the Registrar had nothing whatever to do with it. The card was printed and circulated entirely without his knowledge. Consequently our observations made upon it last week could not in any way apply to him.

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Of course the students ought not to have made free with their Registrar's name; but, after all, the prank was harmless enough, both in intention and in effect, to be easily pardoned as an ebullition of the high spirits natural to young students. Heaven help us if ever they became a race of mere milksops! The letter they have sent us disarms all resentment; and to their engagingly frank apology we very willingly accord prominent publicity. We feel confident that it will be accepted by the Registrar with the same genial courtesy with which he received our own personally conveyed expressions of sincere regret for our wholly unconscious share in the hoax.

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If there is anything about judges and magistrates more awe-inspiring than their omniscience, it is their infallibility. Thus, when Mr. d'Eyncourt, sitting at Clerkenwell the other day, heard several "dangerous structure" cases, in one of which the ingenious defence was that a bulging wall, having been in that condition for twenty years, was *ipso facto* safe, the magistrate said he would go and look at the wall. He was gently reminded of a High Court decision to the effect that a magistrate should decide on the evidence before him, and not on his own opinion from personal observation. "Nevertheless," said Mr. d'Eyncourt, "I think I will go and see it. I have unbounded confidence in my own eyesight in these matters. Sometimes the district surveyor tells a terrible tale, and when one sees the wall or building there is only a brick displaced." Told that "a layman did not see what the expert could see," he answered, cryptically, "I know." It is left unrecorded whether the infallible eyesight of the magistrate coincided with that of the district surveyor; but, in any case, it is quite certain that a legal



luminary can see much further through a brick wall (whether or not there is "only a brick displaced") than can a mere architect or builder; and since the average district surveyor pretends to the same abnormal acuteness of vision, it is perhaps as well that occasionally the former supplies the necessary correction for the latter's hypermetropia.

### HERE AND THERE.

WHEN the wild bells ring out to the wild sky some agonising author or some jaundiced Anglo-Indian retired colonel is sure to write to the local paper about it. Thereupon ensues a jangling controversy of interminable length; for there are those who love bells passionately, as well as those who hate them with an equal degree of intensity. If the former did not greatly prevail in numbers the "bells of Shandon that sound so grand on" something or other would not have become classic, Poe would not have thought it worth while to worry and torture a score or so of rhymes in irritating iteration of the "tintinnabulation of the bells, bells, bells," and we should have lacked the refreshingly quaint appellative of the Ancient Society of College Youths.

Also we should have missed many a captivating legend and many a more or less interesting volume of bell-lore. Surely the most considerable of all books about bells is that which Mr. H. B. Walters, M.A., F.S.A., has published through the Oxford University Press—a handsome volume of four hundred pages for seven-and-sixpence. Its bulk is not the only sign that there is a great deal that can be said about bells; for a bibliography which the author has industriously got together occupies twelve pages, in which the entries include not only books and pamphlets, but periodicals: for example, "The Bell News and Ringers' Record."

Bells and buildings are hardly separable in thought or in fact; the solitary exception of the diving-bell having no claim to consideration as bell at all, unless its shape shall save it, for sound it hath none, and therefore it lacketh the essential virtue of a right proper bell. Yet the word bell did not give the name to the belfry, which, Mr. Walters reminds us, is derived from the French *beffroi*, from a mediæval word meaning pent-house. Big bells and the bell-towers came to this country with the Saxons; but no existing bell-tower is older than the tenth century. Comparatively few parochial bell-towers are earlier than the fourteenth century; but the centrally placed towers of Barton-on-Humber and Iffley are respectively pre-Conquest and Norman; and the western towers at Earl's Barton and Lopham are commonly called Saxon. In the Western Counties the epidemic of bell-tower building set in about the year 1500.

For want of a tower the bells were sometimes hung on a frame (or even on a tree) in the churchyard, as they do to this day at Quarley and Shenley. At East Bergholt the bellhouse is a wooden shed, the devil (perhaps in his favourite disguise of an empty purse) having prevented the completion of the tower. Old St. Paul's Cathedral had a special endowment "for ringing the hallowed bell in great tempests and lightnings." It was a common practice to ring the bells during a storm, and at Strasburg they flout mysticism by pretending that their "storm bell" or "recall" is rung to warn travellers in the plains that a storm is coming down from the Vosges. Latimer was of the sceptics. He said that if bells really had any power against devils, Satan might soon be driven out of England by a general ringing.

Of bell-turrets constructed to hold two bells in separate arched openings there are many Norman or Early English examples. The like are frequently seen in cheap chapels built yesterday in the suburbs. Bell-towers detached from their churches, lest weight and vibration should ruin the fabric, their most notable exemplar at Chichester, where the only existing detached campanile belonging to a cathedral; but there are about sixteen other examples, of which Mr. Walters gives a list in a fascinating book. Also he enumerates the bells of the world, with their date, weight and diameter. Moscow, of course, comes easily first with its monstrous mountain of metal, weighing 220 tons and measuring 22 ft. 8 in. in diameter. Great Paul's Cathedral, our Metropolitan cathedral, weighs but 16 tons and has a diameter of 9 ft. 6½ in.; but it was strong enough to break down several bridges on its triumphant but destructive progress to London from the fortress of Messrs. Taylor, of Loughborough.

Reluctantly I leave Mr. Walters, after but briefly indicating the wealth of interest embedded in his covered and bulky book (which, by the way, is so handsomely illustrated), and (for a change of treatment but not of subject) turn to a smaller red-covered volume, entitled "Bell Towers and Bell Hanging: An Appeal to Architects," which is by Sir Arthur Heywood, Bart., and is to be had from Messrs. Longmans for so small a price as two shillings net. Mr. Heywood finds that the "extraordinary spread of scientific change-ringing" during the last forty years, and the consequent impetus given to the erection of new bell-towers, calls for a revised view by architects of the construction of bell-towers. He complains of "the proposals of bell-hangers and ringers, not based upon sound engineering principles, which often meet with contemptuous rejection."

"Sound engineering principles" quotha! Alas, the engineer is invading even this sanctuary! I am glad that this appeal is addressed to architects, who may be addicted to rejection, but who I protest never—well, hardly ever—contemptuous), because the intrusion of the engineer envisages the disappearance of bell-towers modelled on the Tour de St. Martin rather than on the Angel Tower at Canterbury. The book is of much practical value to the architect who is not contemptuous. He will not be troubled by the calculations and curves and formulæ contrived by Mr. Edwin Lewis, M.A., who gets absolute results in his engineering by virtue of his being an enthusiastic change-ringer and—crowning grace—a member of the Ancient Society of College Youths.

Mr. E. Alexander Young, A.R.I.B.A., an enthusiastic ringer, and a member of the same Ancient Society, presents the architectural view in a way as interesting as well as very practical way, and discusses the subject in language that we all understand. He goes into the ratio of thickness to height in various typical towers, compares Wren's towers with those of the Goths, and condenses much valuable practical information into a few tersely worded pages. He fears that the first Gothic revivalists of the early nineteenth century "copied far more the outward than they did the interior strength, and are responsible for the just complaint that many of their towers are unsuitable for a ring of bells of even moderate weight. No architect interested in church building is secured by his title to wisdom if he ignore this exceedingly valuable little book, which exhibits all the latest developments in bell-hanging, and establishes a correspondence with the newer and truer views of tower design.

NEC



## THE SCOTT MEMORIAL.

little more than a year since the tragic end of Captain Scott's Antarctic Expedition became known, and already a monument is to be erected to memory of the men who perished in that disaster. The competition for models which it was decided to have six eminent sculptors—Mr. Stirling Lee, Mr. J. Walker, Mr. S. Babb, Mr. Albert Hodge, Mr. Herbert Wood, A.R.A., and Mr. Hartwell—were asked to take part; and the award of the assessor, Thomas Brock, R.A., has just been made in favour of Mr. Albert Hodge, of whose model a view is shown in the accompanying illustration.

During the past few days the six competitive models have been on exhibition at the Imperial College of Art, South Kensington, but it is probable that by the time they have been removed.

Mr. Hodge is to be sincerely congratulated on his success. His design is the only one that has realised the symbolic possibilities of the heroic incidents which it commemorates. It is obvious that all the details of the work must have been carefully thought out before the modelling was touched.

Mr. Hodge looks unfavourably upon the crude realism which shows every detail of the outward

aspect. He is convinced that, in a memorial such as this at least, the aim should be to embody in expressive forms the great underlying idea of the subject, whatever it may be. In the present instance he has conceived it essential to give powerful expression to the courage and heroic fortitude which were shown by the men who lost their lives. It is a canon of Mr. Hodge's faith that the representation of an abstract ideal by means of ordinary conventional figures is utterly impossible; it is frequently attempted, but it never succeeds. Mr. Hodge's memorial, therefore, is largely symbolical in conception, particularly with regard to the important group which crowns and gives chief emphasis to the work. The monument throughout expresses a fearless courage, and it provokes an almost instinctive recollection of Henley's dauntless spirit:—

"Out of the night that covers me,  
Black as the pit from pole to pole,  
I thank whatever gods there be  
For my unconquerable soul."

The memorial, which is square on plan, is built up in a logical progression of stages. At the base four panels, one on each side in semi-relief, illustrate the



Photo: Record Press.

THE SCOTT MEMORIAL. ALBERT H. HODGE, SCULPTOR.



events of the last tragic journey. These panels, which are the nearest approach to realism that the memorial has to show, are taken from the cross which was erected by Scott's companions on Observation Hill.

At the base of the pedestal on the front and sides are circular medallions, in which profile portraits of Scott and his companions will be inserted; they are merely indicated on the model. A continuous band runs around the memorial, and on this is given Scott's last stirring message: "Had I lived I should have had a tale to tell of the hardihood, endurance, and courage of my companions which would have stirred the heart of every Englishman."

The crowning group is a fine imaginative composition, and it gives the keynote to the whole memorial. It represents Courage, sustained by Patriotism, spurning Fear, Despair, and Death, and being crowned by a winged figure of Immortality.

The architectural detail, unlike that of the majority of sculptors' memorials, is excellent; indeed, the whole composition has a distinct architectural character. This quality is due to the fact that Mr. Hodge was trained as an architect before he turned his hand to sculpture. He spent eight years in the office of Mr. William Leiper, R.S.A., and he also studied at Glasgow School of Art, securing the Gold Medal in the National Competition, the Silver Medal in Sculpture, and four bronze medals in architecture. He also had the distinction of passing first in the kingdom in architectural design.

Mr. Hodge was anxious that his memorial should be placed on a site in the Embankment Gardens, axial with Cleopatra's Needle; and no doubt this would have made a splendid setting, apart from its central and easily accessible position. The site, however, could not be secured, and it is highly probable that the monument will now be erected at Greenwich Hospital, midway between Queen Anne's and King Charles's buildings.



Photo: Vandyk.

MR. ALBERT H. HODGE,  
Winner of the Scott Memorial Competition.

## THE PLATES.

### *New Law Courts, Cape Town.*

This building has recently been completed from designs of Messrs. W. Hawke, F.R.I.B.A., and McKinlay. The architectural competition was as long ago as 1905, when Mr. Mervyn Macartney acted as assessor. In the meantime, however, extensive modifications have been made in the design.

The floors and roofs are in reinforced concrete carried out from the designs of Mr. Wells, of Lark Rise, London. Green Spanish tiles cover the roof, and Chance's mosaics are used in the corridors and lavatories and black and white marble in halls. The remaining floors are composed of American mahogany wood blocks. Teak has been used for the joinery throughout, with the exception of Courts Nos. 3 and 4, which are carried out in oak. The ornamental ceiling work was executed by Messrs. Martyn and Co., of Chelsea, in addition to certain wood and stone carving. Over one hundred steel doors and shutters were supplied for the building by Messrs. Chubb, London. The heating and ventilation are on the Plenum system, the plant having been supplied by Messrs. Mathew Yates and Co., London. The iron ornamental railings and lamp standards and the railings to the judges' staircase were supplied by the Bromsgrove Guild. The general contractor for the work was Mr. A. Benning, of Cape Town, and the total expenditure was about £220,000.

### *Templehill, Hampstead.*

This house, of which a detail and a working drawing of the entrance porch are reproduced, has just been completed, on a site adjoining the West Heath, from the design of Mr. C. H. B. Quennell, F.R.I.B.A., and Mr. A. M. Mirrielees. The front entrance is on a mezzanine below the ground-floor level, being planned in consequence of the very considerable difference in level over the site. The walls are faced with a pleasantly variegated red brick. The entrance is in Portland stone, with an oak door. Mr. C. Hart, of Hampstead, was the builder.

### *Cottingham's Designs for Ironwork.*

That Cottingham was a wonderfully versatile designer is clearly shown by a comparison of the various plates which have appeared in the Journal during the past two or three months. The examples given in this issue shows another aspect of his work. Some of the details may not perhaps be of much practical utility in themselves, the vogue of the chimæra, as a decorative motif, for instance, having long since died out. It is in the suggestiveness of detail, however, that Cottingham is still of valuable assistance to the modern designer, by which we are assured, these Cottingham reprints are greatly appreciated.

### *Town-Planning Chart.*

In this issue is published the final stage in the procedure which has to be followed by owners who are about to prepare town-planning schemes proposed to be adopted by Local Authorities. The first eight sections of the Chart dealt with Local Authorities' schemes alone. Together, the Charts cover every possible contingency involved in the somewhat bewildering regulations of the Local Government Board, and they should be found of very considerable value by all who contemplate works of town-planning. The first section appeared in the issue for April 15, the series having been continued uninterruptedly ever since.

### *Small Houses of the Late Georgian Period: Doorways and Portico Details.*

The doorway from Ancaster House, Richmond, is a fine example of richly decorated late-eighteenth-century work. It shows slight Greek influence.





Main Hall, Public Entrance.

Main Corridor.

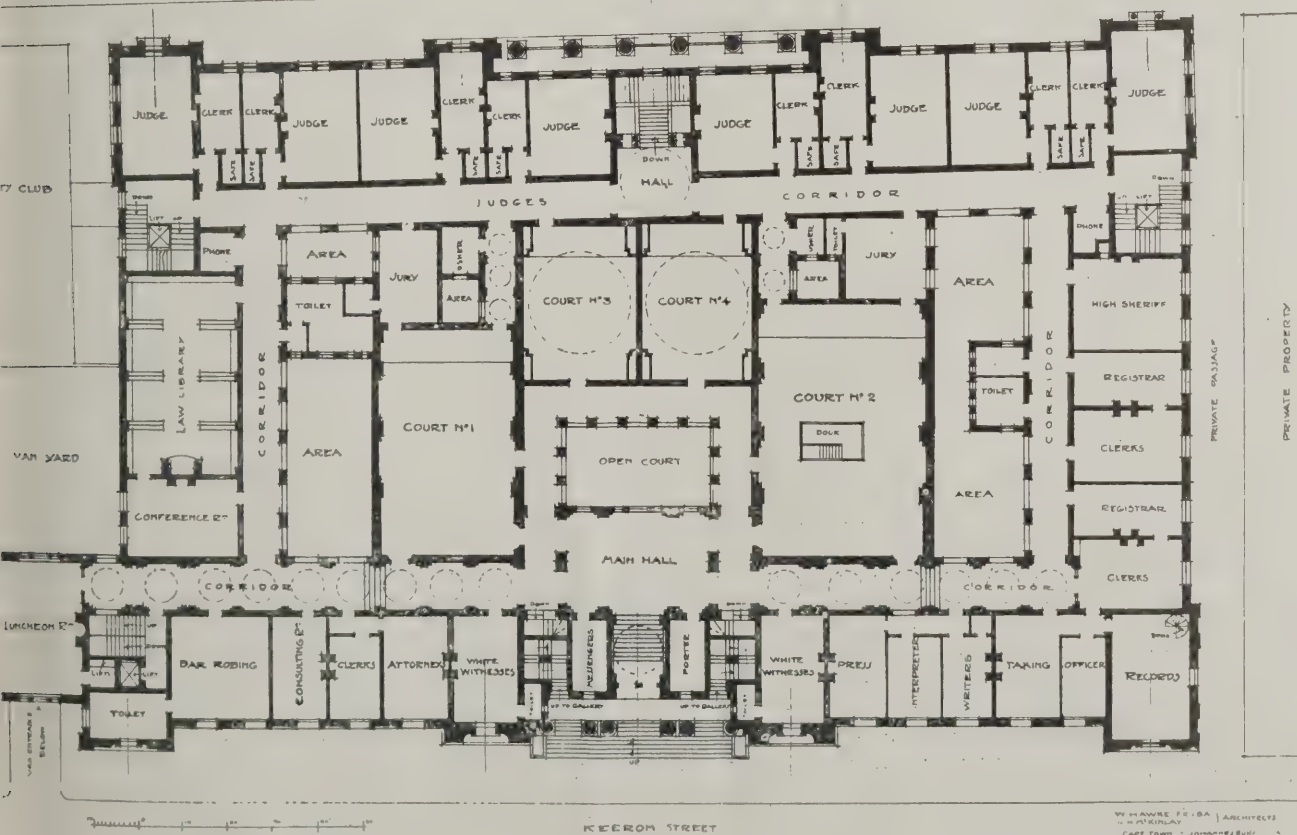
THE NEW LAW COURTS, CAPE TOWN. W. HAWKE, F.R.I.B.A., AND W. N. MCKINLAY, ARCHITECTS.

cularly in the details of the caps to the columns (which are based on the capitol from the Tower of the Winds at Athens), and in the mouldings to the cornice. The portico in Ruskin Park, Denmark Hill, has now been adapted for the use of a shelter. It was formerly the entrance to Captain Wilson's house, which stood

on this site. Captain Wilson was a navigator of some note in his day. The detail suggests that the design was carried out by the architect who built Surrey Lodge, a house which, adjoining the Park, clearly shows the Adam influence. It has already been illustrated in this Journal.

• LAW COURTS - CAPE TOWN -  
PLAN OF PRINCIPAL FLOOR

QUEEN VICTORIA ST. MUNICIPAL GARDENS



THE NEW LAW COURTS, CAPE TOWN: PLAN OF PRINCIPAL FLOOR.

W. HAWKE, F.R.I.B.A., AND W. N. MCKINLAY, ARCHITECTS.



## MODERN ARCHITECTS:—V. KARL FRIEDRICH SCHINKEL.

SPECIALLY CONTRIBUTED BY A. TRYSTAN EDWARDS, M.A.

(Continued from p. 47.)

THE Old Museum in Berlin is the most famous of Schinkel's works. Undoubtedly the scheme is based upon a magnificent conception—that of a vast rectangular building dominated by a small central attic. The site is an ideal one, being a long space adjacent to the river bank; it is at the north-east side of the Lustgarten, facing the castle. The plan is 276 ft by 178 ft., and the height to the top of the main order is 61 ft. The fresco, which extends the whole length of the front, is from Schinkel's own design, and was executed by Cornelius. It represents in mythological and symbolical figures the world's progress from chaos to organic and highly developed life. In this notable example of Neo-Grec architecture Schinkel appears to have solved the difficult problem concerning the application of colour to the exterior of a building, and it is a matter of surprise that his treatment in this instance has not been more widely imitated. The main lines of the structure are admirably preserved by the colonnade; yet behind the columns there is a magnificent pageant of colour which does not obtrude itself, but which is yet seen to great advantage in a pleasant, even light. Here the chromatic element does nothing to impair the proportions of the fabric or to accentuate any special part of it unwarrantably, while it yet adds enormously to the interest of the façade. One can extract from this example the general rule that exterior mural painting is seen at its best when it is placed a little distance behind the main boundaries of the edifice. In several German towns there is an elegant Kurhaus, displaying frescoes thus subordinated and protected. Such a solution is a double success, because the æsthetic and practical requirement are alike fulfilled. The colour has its proper relation to the form, and is also so situated that it is preserved from the ravages of the weather. Of the architectural detail it is not necessary to say much. Schinkel was the first to employ the Erechtheion Order upon a large scale, and the result appears to justify the experiment. The only criticism with regard to it is that perhaps the order is a trifle too rich to be multiplied to twenty columns. Very elaborate features do not readily lend themselves to repetition. When seen from a distance, however, the capitals look splendid, for the form of the volute is essentially simple, and it is not until one gets quite close to them that the extremely ornate treatment of the necking becomes visible. At the side of the flight of steps are two exceedingly fine equestrian bronze groups, one of "The Amazons," by Kiss, and the other of "The Lion Slayer," by Wolff.

It is natural that this building has been the subject of much eulogy, for it has a noble scale, a striking simplicity, and it is, moreover, adorned with exquisite detail. There are certain blemishes, however, which cannot altogether be disregarded. In the first place, it may be pointed out that the composition is somewhat marred by a lack of homogeneity. There is a sudden transition between a façade which is columniated and two other façades which are totally devoid of columns. The flanks are distinguished by rows of windows, while the front, with the exception of the centre part, presents a solid wall; and in the basement the disparity is still more strongly marked. Behind the portico at St. Paul's Cathedral there are blind windows, by means of which the unfenestrated part of this building is brought into relation with the fenestrated.

But in the case of Schinkel's Museum the eyes of the spectator, after resting upon columns having a painted frieze as a background, glide round the corner, only

to be greeted by a rusticated wall punctuated by holes. It is true that the entablature is carried around the structure, and the line of the basement also continuous, but this is not enough to give a similarity of character to the façades. What matters worse is that the two rows of windows are divided by an obtrusive string-course, which impinges violently against the corner pilaster, and is there exposed to view; if the architect had decided to make these quite subsidiary and to design not a rectangular structure four-square to all the winds that blow, but a lop-sided building, of which all the interest was concentrated upon one façade, then he might (adopting the device which Smirke used in the Covent Garden Theatre) have projected his corner pilasters a few inches at the sides and turned the entablature round them. In this way the differentiation of the façade would have found expression in skyline, wall, basement, and on the plan itself. Secondly, let us consider the arrangement of the flight of steps, for this is also open to criticism. There are three ways of taking a flight of steps up to a colonnade. The most obvious method was adopted by the Greeks in most of their temples; here the steps were taken round the building; this was a perfect solution, for there was a complete correspondence between the continuity of the steps and the continuity of the colonnade. A second method was discovered by the Romans, who in their temples, such as that at Nîmes, confined the steps to one façade only, and enclosed them within walls which took up the line of the podium; in this case the steps extended to the width of the whole front. The Propylæa Gate at Athens is an instance of yet a third treatment. The steps are confined to a small central part of the front, the latter is accentuated by a wide central intercolumniation, means of which the basement and the façade are brought into concord. But Schinkel has chosen none of these solutions. It is right that the steps do not surround his building, for the columns do not surround it. But he also rejected the example of the Propylæa and made no attempt to make the colonnade take cognisance of the fact that its seven middle intercolumns were in a most important manner differentiated from the others by virtue of their position as an entrance conspicuously marked by an imposing array of steps. It is obvious that Schinkel would on no account have been willing to break the sequence of his columns, that was his initial conception—a long row of gigantic shafts. But such a mighty sequence requires long sequences to keep it in countenance, and it is not permissible to have the main part of a structure composed of a regular repetition of elements, while above and below it there are features which fail to deference to the central pattern. What was the objection, then, to widening the flight of steps until it was continuous with the façade? The answer is that Schinkel wished, by designing the flight of steps of the same width and immediately beneath the attic, to bring these two into æsthetic relation with the other. In this he has succeeded to a certain extent. The flight of steps shakes hands with the attic and the colonnade which ignores them both.

The plan is simplicity itself. Long galleries lead right round the structure, which has two interior courts, with a rotunda in the centre. This hall was founded upon the model of the Pantheon, except that the dome is enclosed with a cubical case. In this case Schinkel's detail is, as usual, highly refined, but the coffering has not got the subtlety (productive of such





THE OLD MUSEUM, BERLIN. KARL FRIEDRICH SCHINKEL, ARCHITECT.

ing effect in the former building) by means of the recesses that compose them are arranged so as to take account of the angle of vision.

The Military Academy (illustrated on page 82) presents another essay in columnar treatment. Here the order is Corinthian, and it is raised upon a double entablature, which latter is cut in two in a rather picturesque manner by a doorway. As in the Museum, the colonnade is made to ignore the entrance.

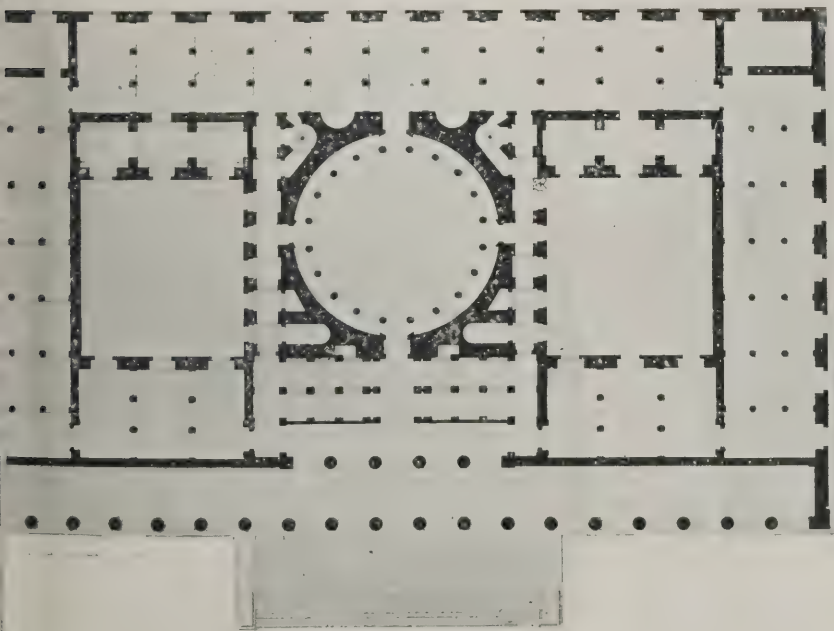
One can succeed in ignoring this single blemish, however, the building will appear to have many virtues. A severe type of fenestration, devoid of arches or other sculptural embellishment, has been adopted. Such interest as the wall-surface has

is derived from a very subtle arrangement of the joints of the stonework.

The Werderkirche in Berlin, built in 1824, is typical of Schinkel's interiors. A series of domes on pendentives is the motif of the design, which has an air of dignity and spaciousness. The rings of angels bearing festoons of flowers do not seem quite an appropriate decoration for the domes, especially as they are not enclosed in annular panels, thus presenting a jagged outline. It must be confessed that much of his detail suffers from the defect of prettiness.

The entrance of this building is admirably managed, and a homogeneity of character has been maintained throughout all the façades. At the ends the broad windows under the portico have been repeated, and are placed between four pilasters, while the narrow windows in the two main storeys keep in countenance those of the attic. In the plan symmetry has been obtained at the expense of truthfulness; but there are many occasions in architecture when symmetry is of more value than truthfulness. Here the theatre itself is placed in the centre, while on the left side is the concert hall, and on the other there is a miscellany of small chambers used for dressing and other purposes.

Schinkel's design for a hunting-box at Ostrowo (1822) is of interest, as it gives an example of his idea of a country chalet. It consisted of a hexagonal hall with four rectangular projections from it, which left four sides of the octagon free for windows. The wings were presumably occupied by bedrooms, but the hall is an empty room having galleries round it, and an



PLAN OF THE OLD MUSEUM, BERLIN.





MILITARY ACADEMY, BERLIN. KARL FRIEDRICH SCHINKEL, ARCHITECT.

immense column supporting a flat ceiling. At the base of the column are fireplaces, and all around it are stags' heads fastened, and other trophies of the chase.

About this time he also executed a beautiful monument to General Scharnhorst, who had reorganised the armies of Prussia and led them to victory. On a plain rectangular block upon a step rest two short piers supporting another rectangular block, the lower part of which is in the nature of an architrave, the centre a sculptured frieze depicting military scenes, the top a moulded stone inscribed on its four sides; on this pedestal there is an immense sleeping lion.

## CORRESPONDENCE.

*The Editors disclaim all responsibility for the statements made or opinions expressed by correspondents, who are asked to be brief, and to write on one side only of the paper. Every communication must bear the name and address of the sender.*

*The A.A. and the Public Schools: Explanation and Apology.*

*To the Editors of THE ARCHITECTS' AND BUILDERS' JOURNAL.*

SIRS,—With reference to the statement published in your columns last week concerning the "Registrar's Message and Souvenir" at the annual distribution of prizes at the A.A., I think that it is only fair to the Registrar, in view of the publicity given to this incident, that some explanation should be forthcoming.

The card was the outcome of an intentionally harmless joke on the part of the students, and it was their intention to array themselves in absurd costumes and to parade themselves at the prize-giving as "the English gentlemen of to-morrow," but owing to the regrettable death of a member of the Council, namely, Mr. Dare Clapham, this part of the programme was at the last moment abandoned out of respect and sympathy for the Council.

The card in question was distributed purely as a joke by the students, and as it had obviously lost its

point was unfortunately taken seriously by everyone present and did more harm than good, unconsciously exposing the Registrar to criticism for an incident for which he was not in the slightest degree responsible.

I shall be much obliged, therefore, if you will insert this in order to clear the misunderstanding which has unfortunately arisen.

STUDENT A.A.

[Our observations on this very obscure joke, and our sincere apologies to the Registrar for our unconscious participation in it, appear on page 75.—EDS. "A.A. & B.J."]

### "Eliminating the Contractor."

*To the Editors of THE ARCHITECTS' AND BUILDERS' JOURNAL.*

SIRS,—The opinions which follow are from discriminating observers, and are of such suggestive value that I venture to set them forth:—

Opinion No. 1.—Is the elimination of the contractor possible? My opinion is that it is not possible.

For any manufacturing business it is necessary to have an organisation and the necessary plant and staff to produce the finished work. A contractor is a manufacturer of buildings, who obtains the various materials and employs the necessary labour, and therefrom completes the edifice required by the building owner. It is therefore difficult to see how direct labour is possible. What would happen would be that the building owner or the architect would become the contractor.

The former proposition is so absurd that it hardly requires discussing. A man might as well employ direct labour to make his motor-car or his hats or his carriages.

The second proposition, that the architect should become the contractor, is, of course, possible, provided that he has the necessary training and capital to undertake the work; but would this be of any advantage to the architect, the building owner, or the workman? If the architect would then merely assume all the responsibilities



of the contractor, and would have to carry out work on precisely the same lines as the contractor at present, and he would have to deal with the man in the same way as the contractor does.

Of course, where money is no object to a building owner he could be his own contractor, but by the time he had gone to the expense of the necessary plant organisation, and had bought his experience, the owner would probably be anything from 25 per cent. to 50 per cent. more than he would pay to a contractor, and in time there must also be a great loss, as he would have no stock of materials to go to, but would have to buy everything required. He would know nothing of any of the men employed, whether they were competent and careful or the reverse. In fact, to rely on a saying about lawyers, the man who is his own contractor has a fool for his client.

What, then, are the causes of labour unrest at the present time? The answer is that this is one of the most complex problems to solve, but its roots are, without doubt, in our faulty system of so-called education, from which all real moral training is eliminated so far as our Board Schools are concerned, and boys and girls are not taught to do the duty that is due to them to the best of their ability.

The more immediate cause of the unrest in the building and other trades is to be found in the Trades Disputes Bill passed by the present Government, which gives what are unjust privileges to trade societies, and enables them to break impunity any agreement entered into by them, and more or less legalises a system of terrorism over individual members of the trade. This Act has given power to the trade unions that they are now using to compel all workmen to belong to one or other of them, and practically most of the late disputes (particularly in the building trades) between the employers and workmen have been on this point.

It is abundantly evident that the masters are fighting out for principles of elementary justice and individual liberty in refusing to discharge men who have worked for them for years, merely because they are not members of a trade union.

No system of profit-sharing, co-operation, or labour partnership is possible in the building trade, because there is always the element of the risk of heavy and unexpected loss to be considered: and, in addition, the conditions of employment differ from those of most other businesses.

WILLIAM A. PITE.

[Opinion No. 2 we are compelled to hold over.—  
"A. and B.J."]

## A PHOTOGRAPHIC AND SKETCHING COMPETITION.

AS announced in last week's issue, a prize of one guinea will be awarded regularly each week for the best photograph or drawing of architectural detail submitted by a subscriber to this Journal. It is desired that photographs and drawings (which will be reproduced to a large scale) should be confined to details possessing some special architectural interest, though views of complete buildings will be open to consideration provided that they are unfamiliar and illustrate some particular point of composition. The sample illustrations given below must not be regarded as restricting the competition to two subjects only; they are simply shown as a general guide to the type of work required.

The copyright of the photograph or drawing awarded the prize of one guinea is to be vested in the proprietors of the Journal, and the Editors reserve to themselves the right to reproduce, without fee, any of the other photographs or drawings submitted.

Photographs should be printed on glossy paper, and drawings executed on Bristol or other suitable board, and the name and address of the sender must be clearly written on the back in each case. A note giving authentic particulars of the subject represented must be attached to every photograph and drawing submitted.

Drawings may be either in pencil or ink, but preference will be given to the latter method, because it is more suitable to reproduction.

The decision of the Editors in respect of the awards is to be regarded as final. Competitors may submit any number of photographs or drawings, and may take part in the competition as often as they please: but in no case can a photograph or drawing be considered more than once. The choice of subject, as indicated above, is quite unrestricted, both with regard to period and style; but it is suggested that particular interest would attach to such details as doorways, windows, grilles, screens, cornice brackets, capitals, panelling, chimney-pieces, ceilings, fonts, pew-heads, metalwork, etc.

All drawings and photographs must be packed flat, and must reach the Editors not later than Wednesday for the succeeding week's competition.

Each parcel must be addressed to "The Editors, THE ARCHITECTS' AND BUILDERS' JOURNAL, Caxton House, Westminster," and on the outside the words "Photographing and Sketching Competition" must be clearly written.



The Palais de Justice, Paris: Detail of Entablature.



Carved Panel in the Library of Queen's College, Oxford.

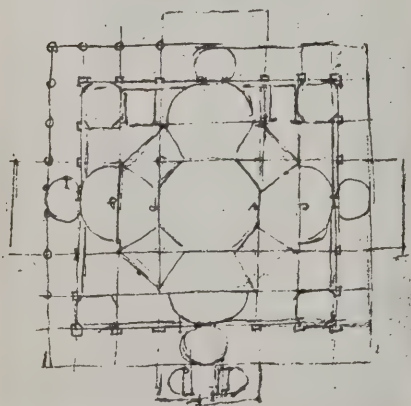
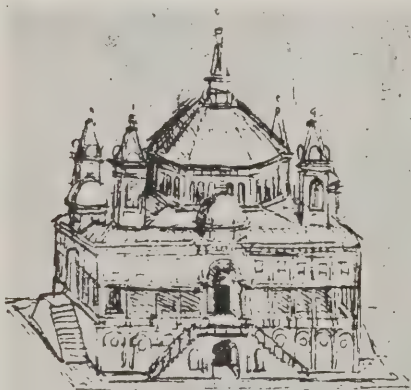
SAMPLE ILLUSTRATIONS FOR GUIDANCE IN THE PHOTOGRAPHIC AND SKETCHING COMPETITION.



## ARCHITECTURE IN CURRENT PERIODICALS.

*The "Architectural Review."*

The July number of the "Architectural Review" opens with an article, the first of a series, by Mr. Patrick Abercrombie on "Summer Palaces and their Gardens." The residences of Frederick the Great at Potsdam are here discussed. The writer says: "This series of buildings, which those critics who are wont glibly to abuse German architecture are largely unfamiliar with, maintains a very high lead, and it illustrates admirably the different phases through which the architecture of the later Renaissance has passed. The Town Palace is built in that sound but dry classical manner which Prussia adopted in protest to the licentious Rococo which was raging over Europe, and very virulently in South Germany. In Sans-Souci, French fashion has at length overcome Prussian stolidity and a piece of first-rate Rococo is the result. In the New Palace a domesticated and somewhat bourgeois magnificence, influenced by Dutch and English Georgian models, takes the place of French elegance, but in the "commons" or retinue's quarters at the rear of the New Palace a return to French of a more monumental character is apparent. The Marble Palace feels the influence of the Neo-Classical leaven which was working through Europe at the end of the eighteenth century. Neo-Greek is in full swing at Charlottenhof, and the last group, the Orangery, the Pfingstberg Belvedere, and the Weinberg Arch, is Italian in manner." The architectural designs of Leonardo da Vinci form the subject of the second article. His schemes for cities and churches of the Greek Cross formation are discussed. His other projects will be dealt with in the next issue. The sculpture of



DESIGN FOR A CHURCH BY LEONARDO DA VINCI.

(From the "Architectural Review.")

Mr. Jo Davidson is criticised by Mr. A. Trystan Edwards. Decorative figures, an incised panel in the Egyptian manner, and portrait busts of Dr. Georg Brandes and Mr. Frank Brangwyn are illustrated. Mr. Randal Phillips, in an article on "Dutch House Fronts," draws attention to some aspects of the domestic architecture of that country which have hitherto been neglected. "The cult of the ' quaint ' and the ' picturesque,' " he complains, "has rendered an ill service to Holland. The eager artist in search of local colour, and, no less, the holiday-making architect with a sketch-book, have between them made us think of Holland as the place not only of windmills and red cheeses and buxom girls in bright costumes, but also as the very home of stepped gables, bulbous church spires, riotous weigh-houses, and exuberant town halls. Yet the fact is that Holland offers us a wealth of houses which may be regarded as the very genesis of our own Georgian, than which, excluding the Tudor, no houses more delightful to look at and live in have ever been built in England." Mr. Stanley C. Ramsey continues his series on London clubs. Of the Carlton, the work of Sidney Smirke, he says that "we see very plainly that love of effect which was to prove so fatal to Classic art in this country." In conclusion, there is an illustrated account of the Usher Hall, Edinburgh.

*The "American Architect."*

The July issue of the "American Architect" is devoted to the third part of a series of articles entitled "Chancels, Their Arrangement and Furniture," by Roger Spelman. All its illustrations are derived from American examples of Gothic architecture. The June number contains illustrations of St. Luke's Hospital, Jacksonville, the Hotel Oregon, Portland, a public recreation building in the same city. A leading article on "The Elimination of Incompetent and Irresponsible Practitioners," is of special interest to those architects in this country who are in favour of registration. The writer says, "One way of protecting the public from exploitation by incompetent and dishonest practitioners is through a vigorous educational campaign conducted by organisations of reputable architects. The value and nature of professional service is much more generally understood now than it was twenty years ago, but there is need of much more work to that end. Proper State registration laws not only protect society and the profession at large by requiring evidence of fitness before permitting a candidate to practise architecture, but also by making it possible to punish offenders for incompetence, carelessness, or dishonesty, and to debar them from further practice."

*The "Architectural Record."*

In the "Architectural Record," Mr. Montgomery Schuyler gives an account of the New York Court House and its site. Mr. Guy Lowell's scheme, in spite of much opposition, is, in all essential respects, to be adhered to, and the writer vigorously defends the design. "Let no one imagine," he says, "that the architect had adopted the circular form only through an admiration of the circular buildings of the Romans, that he had violently squeezed or stretched the requirements of modern courts of justice into conformity with that consecrated shape; such an imagination could not survive a real study of the competitive drawings, and ought not



STATUE OF BLACK HAWK, NEAR AURORA, ILLINOIS. LORADO TAFT, SCULPTOR.  
(From the "Architectural Record.")

to have survived the favourable reports of the experts. Mr. Lowell's design is a logical result of working out the floor-plan in the most obvious way to meet the requirements of the court room unit programme." Mr. Robert H. Moulton writes about the sculptor, Lorado Taft. John T. Boyd contributes a study of Dutch houses in New Jersey, and other articles deal with "The Practical Foundation of a Country Gentleman," and the theory of lighting.

*"Architecture."*

In the issue of July 4 there appear illustrations of a country villa, by Mr. L. Blanche, and of an immense block of asylum buildings by Mr. Gaston Boudin. The latter provides an instance of French planning upon a large scale. The scheme is a grand, monumental conception, but is more suggestive of a civic centre than of an asylum. Some drawings from L'Architecture Salon de la Société des Artistes Français are reproduced. An open-air theatre by Mr. Lucien-L. Girard is especially worthy of notice. The issue of July 11 is devoted to the "Garden City" in France.

*The "English Review."*

The "English Review" of this month contains an article by Mr. March Phillips entitled "Democracy and Art," in which he maintains his artistic heresies with accustomed vigour. His contempt of the æsthetic aspect of architecture sometimes leads him to "protest too much." He says that "There is throughout Gothic art no sign or trace of the æsthetic motive, no sign or trace of that regard for appearance and intimate knowledge of effect which prompt the artist to a stern economy and instruct him in the magnitude of results to be achieved by a wise and careful simplification. There is probably no more in existence from which an art student has less to learn." Most architects will think that the mediæval builders, hampered as they were by the necessity of giving more thought than an artist should to constructive expedients, yet often showed themselves to be capable of conceptions which were truly artistic in character.



"*Berliner Architekturwelt*." "Berliner Architekturwelt" is due to an account of the art exhibition at Berlin during the present year. Modern architecture of every type is represented here. The model for a court of houses in Tempelhof, by F. Bräuning; the bank, by Dr. Philipp Nitze; a house, by Albert Bubendt, are examples of modern planning. The picturesque à la mode manners are well represented in "A Group of Country Houses," by Ferdinand Elster; there is a Chapel by Hansen and Bachman, and many other houses of the über-villa type so common in Germany are illustrated.

The "Brick-Builder." The June number of the "Brick-Builder" contains articles on "The Use of Colour in Architecture," by Birchette Long; "The Private Library," by H. S. Bottomley; "Bathing Pools, In and Out of Doors," by Wilfred W. Riggall; "Colonial Doorways of Baltimore," by Riggall Buckler, and a monograph on the work of the architectural draughtsman, Mr. Floyd Sewell. The writer comments upon the recent tendency of architects to produce elaborate water-colour sketches. He says: "There has been within the last year or two a reaction in the architects' offices in favour of drawing which can be made by draftsmen and painters, many architects feeling that the expense of the wonderful coloured

drawings is an added burden which would be unnecessary if it were not customary. In other words, if all architects submitted the same sort of sketches to their clients no man would feel that he had lost work because of the superior presentation of an inferior scheme by someone else, and many men have said of late that clients are being educated to expect far too much in this way from their architects." Among the full-plate illustrations are a public library building, Beverly, Mass., by Cass Gilbert; Thorndike School, by Charles R. Greer; a municipal and post office building by F. Burrall Hoffman, jun.; a house in New York, by York and Sawyer; a delightful country house by Myron Hunt.

## NEWS ITEMS.

### *Newport's New Lock.*

Prince Arthur of Connaught during his recent visit to Newport inaugurated the new lock of the Alexandra Dock, which is 1,000 ft. long by 100 ft. wide and has cost about £2,000,000.

### *Portsmouth's £200,000 New Road.*

The Portsmouth Town Council have unanimously approved the scheme for the provision of a new road out of the town, which is to cost about £200,000. The road will include an extension of the Esplanade past Eastney Barracks, and afford an

avenue 80 ft. wide fringed with trees and shrubs for four and a half miles to the boundary of the borough, and thence will be continued by the Hants County Authorities to Portsdown Hill. The scheme will now be submitted to the Road Board in order to secure what financial assistance is possible.

### *Annual Staff Holidays.*

Messrs. John W. Simpson, F.R.I.B.A., and Maxwell Ayrton, A.R.I.B.A., 3, Verulam Buildings, Grays Inn London, W.C., ask us to note that, in accordance with their usual practice, their offices will be closed from August 3 to 17, both days inclusive, for the annual staff holidays. Arrangements will be made as usual for dealing with all business referring to buildings in actual progress.

### *Architectural Tour in South France.*

Mr. W. S. Purchon, A.R.I.B.A., Lecturer in Architecture at the University of Sheffield, asks us to state that the final arrangements for the above tour are now being made, and that those desirous of attending should send in their names without delay. The tour will start on August 31 and the following places will be visited: Poitiers, Limoges, Périgueux, Cahors, Conques, Rodez, Rocamadour, Cordes, Carcassonne, Nîmes, Arles, Avignon, Orange, Le Puy, Isoire, and Clermont Ferrand. The tour is open to all interested in the study of architecture, whether ladies or gentlemen.

### *Summer School of Town-planning.*

Mr. Herbert Samuel, President of the Local Government Board, has promised to give the inaugural address to the members of the Summer School of Town-planning on Monday evening, August 3. The course will be held in the School of Architecture at University College, London, from August 3 to 15. Although Germany rivals Great Britain as a pioneer of town-planning, a good many foreign architects are attending this English school, as the English housing system is being taken as a model by many growing towns on the Continent, whose people find their flat system more costly than our single houses. A group of students from the American schools of architecture are also attending. Mr. Raymond Unwin, F.R.I.B.A., lectures on "The Practice of Town-planning"; and Prof. S. D. Adshhead, M.A., F.R.I.B.A., and Mr. Patrick Abercrombie, M.A., will give courses on "Town-planning in the Past and in Foreign Countries." Besides the courses of lectures by leading English town-planners, special lectures are arranged by well-known American and German professors of the subject. This summer school initiates the study of town-planning at the University of London.

### *British Portland Cement Manufacturers, Ltd.*

The report of the directors of this company submitted to the third ordinary general meeting on the 27th inst., records an improvement in the trading results for the period covered by the accounts. Trading conditions upon the whole have been satisfactory, but sales have been adversely affected in certain markets by labour disputes in various parts of the kingdom, while towards the end of the year the demand for cement somewhat lessened owing to the general decline of trade at home and abroad. The company's new works in the North of Ireland are making substantial progress, and it is hoped that they will be completed before the end of the current



DETAIL OF HOUSE, 14, EAST 76TH STREET, NEW YORK.  
YORK AND SAWYER, ARCHITECTS.

(From The "Brickbuilder.")



year. The construction of the works in South Africa, in which the company is largely interested, is well advanced, and manufacturing operations are expected to commence within the next few weeks. Captain the Hon. F. C. Stanley, D.S.O., has been unanimously elected chairman of the company. The revenue for the year amounted to £330,262 odd, leaving a profit of £250,500, and the directors recommend that the balance of the preliminary expenses, amounting to £11,755 11s. 9d., be written off (as against £6,000 last year); that £40,000 be added to the general depreciation reserve account, making it £80,000, and that the dividend on the Ordinary shares should be at the same rate as for the previous year—namely, 7 per cent., leaving £64,322 11s. 2d., to be carried forward—an addition of £31,754 2s.

## SPECIAL LEGAL REPORTS.

### Action Against Builders: Underpinning: An Appeal.

*Kirkby v. Chessum and Sons; Commissioners of H.M. Works and Public Buildings, third parties.*

July 15. Court of Appeal. Before Lords Justices Buckley, Kennedy, and Phillimore.

This was an application by the defendants, Messrs. Chessum and Sons, builders and contractors, for judgment or new trial on appeal from verdict and judgment at trial before Mr. Justice Avory and a common jury. (See our issue of October 22, 1913.)

In the Court below the action was by Mr. F. Kirkby, of High Road, East Ham, against Messrs. Chessum and Sons, claiming damages for trespass. The third parties were the Commissioners of Works and Public Buildings, for whom the defendants were constructing a post office next to the plaintiff's premises.

Plaintiff's case was that he had occupied his premises for more than twenty years. When built, a portion of the wall of his house projected slightly on to the adjoining land, and the eaves also projected slightly beyond the face of the brickwork. This had existed for more than twenty years. The next building was used as a small post office, and was separated from the plaintiff's house by a passage. The Post Office decided to erect larger premises, and plans were prepared which brought the new building under the plaintiff's eaves and over his footings. This plan was, however, abandoned, and ultimately the builders put up a big hoarding around the building and, plaintiff alleged, proceeded to excavate below his property and without communicating with him dug a big hole, plaintiff said, under his floors and put in hard masonry, cutting away or burying in the masonry the plaintiff's footings. This they did for a distance of 14 ft. At the trial the third parties blamed the builders, and the builders in turn blamed the third parties.

For Messrs. Chessum and Sons it was argued that the underpinning became necessary owing to the walls being in a rotten state, and that the work had been done satisfactorily. It was also argued that this was only a technical trespass.

The jury found for the plaintiff, and assessed the damages at £20. Judgment was asked for the builders on the ground that the plaintiff had shown no injury to the reversion and that he had not alleged or suffered any structural damage. Mr. Justice Avory held that the cutting away

of the foundation of the plaintiff's house was undoubtedly a trespass, and that the plaintiff had suffered damage to the extent of £20 by that trespass, and he gave judgment for the plaintiff for £20 as against the builders. Mr. Justice Avory further held that the third parties were not liable, and he gave judgment for them.

It was from this judgment that the defendants now appealed.

Sir R. Acland, K.C., and Mr. G. A. Scott appeared for the appellants, and Mr. Morton Smith for the respondent. The third parties were represented by the Attorney-General, Sir J. Simon, K.C., and Mr. Lowenthal.

Sir R. Acland submitted that here there was no evidence of any damage to the reversion. He argued that the existence of the wall his clients had put in had saved the plaintiff many pounds. As a fact, it had saved him £9 1s. 6d. If the plaintiff did not want to make a cellar he now had a stable wall in the place of one which formerly rested upon made-up ground. His submissions were that the action was not by one who could complain of trespass *qua* trespass, and further that there was no evidence upon which the jury could have given £20 damages.

Mr. Morton Smith said his case was that the underpinning of this particular piece of wall was actually discussed in June, and that it was understood that the builders would give the plaintiff notice of anything they intended doing, and that it was thought that this had been done. The whole reason of the appeal was that the appellants did not succeed in throwing the responsibility on the third parties.

Sir R. Acland further argued the case and Mr. Scott followed.

The Court then proceeded to consider the respondent, or third parties, dismissed the appeal.

Lord Justice Buckley said upon this application he thought the Court ought not to interfere. Plaintiff was the reversioner of the premises. The appellants had some complaint as to the form of the pleadings, but the Court did not think that that matter affected this appeal. He came to the conclusion that there was evidence upon which the jury could give a sum in excess of the 18s. 6d. The jury found for £20, but his lordship did not think he should have arrived at that sum. But under all the circumstances he thought that that Court ought not to interfere.

Lords Justices Kennedy and Phillimore agreed.

Appeal dismissed with costs.

The Court then proceeded to consider the appeal of the builders against the judgment in favour of the third parties.

Sir R. Acland, for the appellants, argued that the builders were entitled to an indemnity from the third parties, seeing that he alleged, the architect and surveyor of the Office of Works had told the appellants that it was urgently necessary that the underpinning should be carried out expeditiously. Under these circumstances, he argued that the indemnity clause in the contract did not deprive the builders of a right to recover here against the Commissioners.

Lord Justice Buckley said the clause, as a clause, did not apply here, as no claim had been made against the Commissioners.

The Attorney-General pointed out that from the evidence it was clear that the appellants stated that they had informed or asked the adjoining owner as to the underpinning of the wall.

After hearing the long legal arguments, the Court allowed the appeal of Messrs.

Chessum and Sons as against the third parties, with costs, holding that Messrs. Chessum and Sons were entitled to an indemnity.

## THE LUMSDEN CASE IN HOUSE OF LORDS.

*Lumsden v. Commissioners of Inland Revenue.*

July 20. Before the Lord Chancellor, Lord St. Dunstons, Lord Moulton, and Lord Farquhar.

The question at issue was whether the appellant was liable to pay increment value duty upon the occasion of a sale by him of a dwelling house and shop, Nos. 1 and 2, Lansdowne Road, Forest Hill, Northumberland. The question depended upon the construction of Sections 2 and 3 of the Finance (1909-10) Act, 1910. Lord Justice Horridge, reversing the decision of the Referee, decided the question in favour of the Crown, and his decision was affirmed by the Court of Appeal. The Master of the Rolls and Lord Justice Kennedy, Lord Justice Swinfen Eady dissenting.

Sir Robert Finlay, K.C., and Mr. Allen appeared for the appellant; and the Attorney-General (Sir John Simon, K.C.), the Solicitor-General (Sir Stanley B. Lee, K.C.), and Mr. William H. Jones for the respondents.

The appeal was argued in June last.

The Lord Chancellor, in delivering judgment in the House of Lords, said the real point lay within narrow limits, turned on the proper construction of the words in the Finance (1909-10) Act. The appellant had been held liable to increment duty arising upon the occasion of a sale by him of a dwelling-house and shop. By the Act of Parliament the duty was charged on the increment value of the land. That increment value was the amount by which what was called the value exceeded, on the occasion on which the duty arose, the original site value. An important controversy between the parties which arose on these findings was as follows: The appellant maintained that the deductions directed by Section 2 of the Finance (1909-10) Act, 1910, must be made from the £750 and £300 amount of the capital charge for tithe, in order that the analogy of the deduction from gross value might be followed, the full site value at the time of sale by admission remained at £228, the difference between gross value and full site value must be taken to be £555. Therefore, on the footing that the sale price of £750 was to be taken as representing the total value for the purpose of ascertaining the proper deductions, it was from this figure that the £555 must be deducted, and this subtraction, after allowing £90 for further deduction for roads made, resulted in an assessable site value of £105. It was, therefore, no increment value. According to the original valuation which was annexed to the Referee's report the original gross value was £658, the original total value that amount minus the capital value of tithe, i.e., £625, the original full site value £228, and the original assessable site value £105, the same amount as on the occasion of sale. The respondents challenged the basis of calculation, contending for a different construction of Section 2. Accepting the figures, they said that as the value had been found at the time of sale to be £658, and the full site value to be £228, the difference really prescribed



act of Parliament was £430. They maintained that, on the facts found, there be no further deduction, the gross having been so found, excepting the roads, and that the total amount of from the £750 was therefore which gave a site value of £230, and in increment duty being exigible the difference between this and the site value of £105. The Referee on the view of the appellant. On appeal Justice Horridge disagreed with the referee and adopted the contention of the appellant. In the Court of Appeal the Lord of the Rolls and Lord Justice Kenning agreed with Mr. Justice Horridge, Lord Justice Swinfen Eady differed. The scheme of the Act appeared to him (Lord Chancellor) to provide for all valuations that from time to time become necessary. There was no reason to think that the duties of the referees were confined to the estimation of site values only. In the case of increment value duty, it appeared to him that the argument must, on the literal construction of its language, be taken to have contemplated the possible taxation of either anything more or something less than site value strictly so called. He thought there was nothing in the context or structure of the Finance Act before that rendered it necessary to read the words which had given rise to the present question otherwise than as the majority of judges in the Courts below had read. Lord Shaw of Dunfermline gave judgment to the same effect. Lord Moulton differed. The respondent admitted, as they were compelled to, that the site value had not changed in any way, and that this would be found to be the case whichever valuation one took. But they claimed that the Act required them to charge upon the difference between the two valuations of the total estate as "increment of site value"! The Lord Justice, in his opinion, pronounced that an interpretation of Section 2 which would make occasional site value a meaningless abstraction having no connection with site value. One must have lived in the ordinary life of educated people in England to suppose that any Government or any Legislature could have called for a tax on the increment of the site value of land. Moreover, there was no conceivable reason for such an absurd scheme being adopted. It was impossible to say that it produced more or less value than would be produced by that for which the appellant contended. It only served that the revenue was collected in a way that it could not be, or be justly called, a tax on the increment of site values. And after long and careful consideration of the Act he was convinced that the interpretation contended for by the respondents could not be defended as being in accordance with the true construction of the Act. If read as a whole, the Act, in his mind, clearly meant that for which the appellant contended. He saw nothing which required him to hold that Section 2 had a meaning which would render meaningless the clear and repeated professions in the Act that the duty it imposed was a tax on the increment of site value, and he was of opinion that the appellant was wrong in his construction of the section, and that the appeal should be allowed. Lord Parmoor gave judgment to the same effect as Lord Moulton. Their lordships being equally divided in opinion the appeal was dismissed without costs. [Condensed from a full report in the Times of July 21. For comment on the case, see under "Editorial."]

## PROJECTED NEW WORKS.

### *Hospital Wing, Willesden.*

It has been decided to build a new wing to the Willesden Hospital at an estimated cost of £12,000.

### *Sanatorium, Herts.*

Hertfordshire County Council have decided to purchase eighty-six acres of land at William for £6,000, as a site for a tuberculosis sanatorium.

### *Theatre, Chelsea.*

At a meeting of the Chelsea Borough Council the Works Committee reported that Lord Cadogan had agreed to grant a site in Flood Street for the erection of a theatre.

### *Municipal Housing, Barrhead.*

The Local Government Board have approved a scheme of municipal housing submitted by the Barrhead Town Council, and detailed plans of the houses are to be prepared.

### *Housing Scheme, Southgate.*

Southgate District Council intend to spend £40,465 in connection with a scheme to provide 160 houses for the working classes. A Local Government Board enquiry has been held.

### *Public Hall, Kilburnie.*

A public hall and offices are to be erected at Kilburnie for the Parish Council. The council have received an offer of £2,000 towards the expense, and will themselves contribute £1,200.

### *Church, Ballymena.*

At a meeting of the Presbytery of Ballymena it was stated that a sum of £2,000 has been left by Mr. David Russell, of Knockboy, for the building of a church, and steps are being taken to carry out the terms of the will.

### *Council Schools, Ilkeston.*

Ilkeston Education Committee have selected a site in Longfield Lane or Corporation Lane for a new block of schools in the place of the Hallam Fields Schools, which have been condemned by the Board of Education.

### *Open-Air School, Barry.*

A special committee appointed to consider the question of an open-air school at Barry have recommended to the education authority that the most suitable site is that on Tynewydd Road, at present used as allotment gardens.

### *Church, Snibston.*

A new church is to be built in the parish of Snibston, near Coalville, at a cost of about £1,800. The Rev. F. W. Atkins, vicar, has approved plans, and it is proposed to erect the main building first, and add the chancel afterwards.

### *Asylum Extensions, Birmingham.*

Birmingham City Council have under consideration a report from the Asylums Committee, who recommend the expenditure of £130,000 on the building of new asylum premises and extensions of the present accommodation at Hollymoor.

### *Hospital, Chelmsford.*

A bequest of £5,000 was made by Lord Strathcona for the establishment of a leper hospital in England, and it is stated that a farm has been acquired for the purpose in the neighbourhood of Bicknacre, four miles from Chelmsford. Plans have been prepared for a special building. The St. Giles's Association for the Treatment of Incurable Diseases of the Skin have charge of the scheme.

### *Public Baths, Levenshulme.*

The scheme of the Manchester Corporation to erect public baths and washhouses in Barlow Road, Levenshulme, at a cost of £13,100, and public washhouses adjoining the Leaf Street Baths, Hulme, at a cost of £3,770, met with no opposition at a Local Government Board enquiry.

### *Public Hall, Cardiff.*

A syndicate of Cardiff gentlemen are to erect a public hall on the site of the Westgate Street Skating Rink. The new building will be 200 ft. long and 100 ft. wide, with seating accommodation for 5,000 people. The architects are Messrs. Willmott and Smith.

### *Sanatorium, Godalming.*

The Metropolitan Asylums Board have purchased fifty-seven acres of land at Hyde Hill, two miles from Godalming, for the purpose of erecting a tuberculosis sanatorium for women. Accommodation is to be provided for 200 patients and plans are in course of preparation.

### *Public Hall, Langholm.*

The Territorial Association of Dumfriesshire is negotiating with Langholm Town Council with the view of combining the erection of a public hall for the burgh with the provision of drill, etc., accommodation for the local Territorials. The Public Works Loan Commissioners sanctioned a loan of £7,000 in all for the works.

### *Flats, London.*

Plans have been submitted to the London County Council by the Lady Workers' Homes, Ltd., 116, Judd Street, in regard to proposed building work at 1, Abbey Road, St. John's Wood. The company have acquired a large house and grounds at this address, and intend to erect a building to supply 120 additional bedrooms and also to put up twenty-six self-contained flats.

### *County Sanatorium, Eastwood.*

Plans have been prepared in connection with the new county sanatorium which the Middlesex County Council propose to build at Eastwood for the reception of tuberculosis patients. The estimated cost of the building is as follows: Main sanatorium building for 220 adults, £21,225; children's block for 60 children and two observation wards for four patients and isolation block for ten patients, making a total of 74 beds, £7,960; staff quarters, £9,936; laundry and power station and quarters for single men, £4,569; sewage disposal and main drainage works, £1,250; water supply, £450; electric lighting plant, £2,500; kitchen and laundry engineering, £1,250; disinfectors and incinerator, £500; heating, £1,000; steam supply, £1,250; main roads, £2,000; total, £53,890. The chief feature of the buildings is the arrangement of the bed wings, all of which have a southern aspect and are connected with the central administration block by a 5-ft. open corridor running the whole length at the back of the rooms. Most of the bed wings will be of two storeys, with accommodation for 45 patients on each floor and verandahs on to which the patients' beds may be wheeled. There is to be a special children's section, which it is proposed to locate in a suitable position as a separate institution, but the nurses, teachers, and staff are to be housed in the general staff block.

The Local Government Board have sanctioned the raising of a loan of £11,600 by the Wandsworth Borough Council for the erection of public baths at Balham.



## COMPETITIONS.

*City Improvement Scheme, Glasgow.*

The Corporation of the City of Glasgow propose to take down the existing buildings at the north-west corner of Trongate and High Street, with the exception of the Tolbooth steeple, to set back the frontage line, and to erect business premises on the site thus obtained, together with the existing open spaces to the north and west. In conjunction with these works, an offer has been received by the Corporation of a gift to the city of a market cross.

The Corporation invite competitive plans for the works involved, namely, (1) the business premises; (2) the retention of the Tolbooth steeple in its present position, with such work as may be required to make good after the removal of the building with which its lower storeys are at present incorporated; and (3) the provision of a market cross.

The President of the Glasgow Institute of Architects at the date of appointment (Mr. A. N. Paterson, A.R.S.A.) will act, with Mr. McDonald, the city engineer, in advising the Corporation in the selection of the design. The competition is open to all architects, except the employees of the

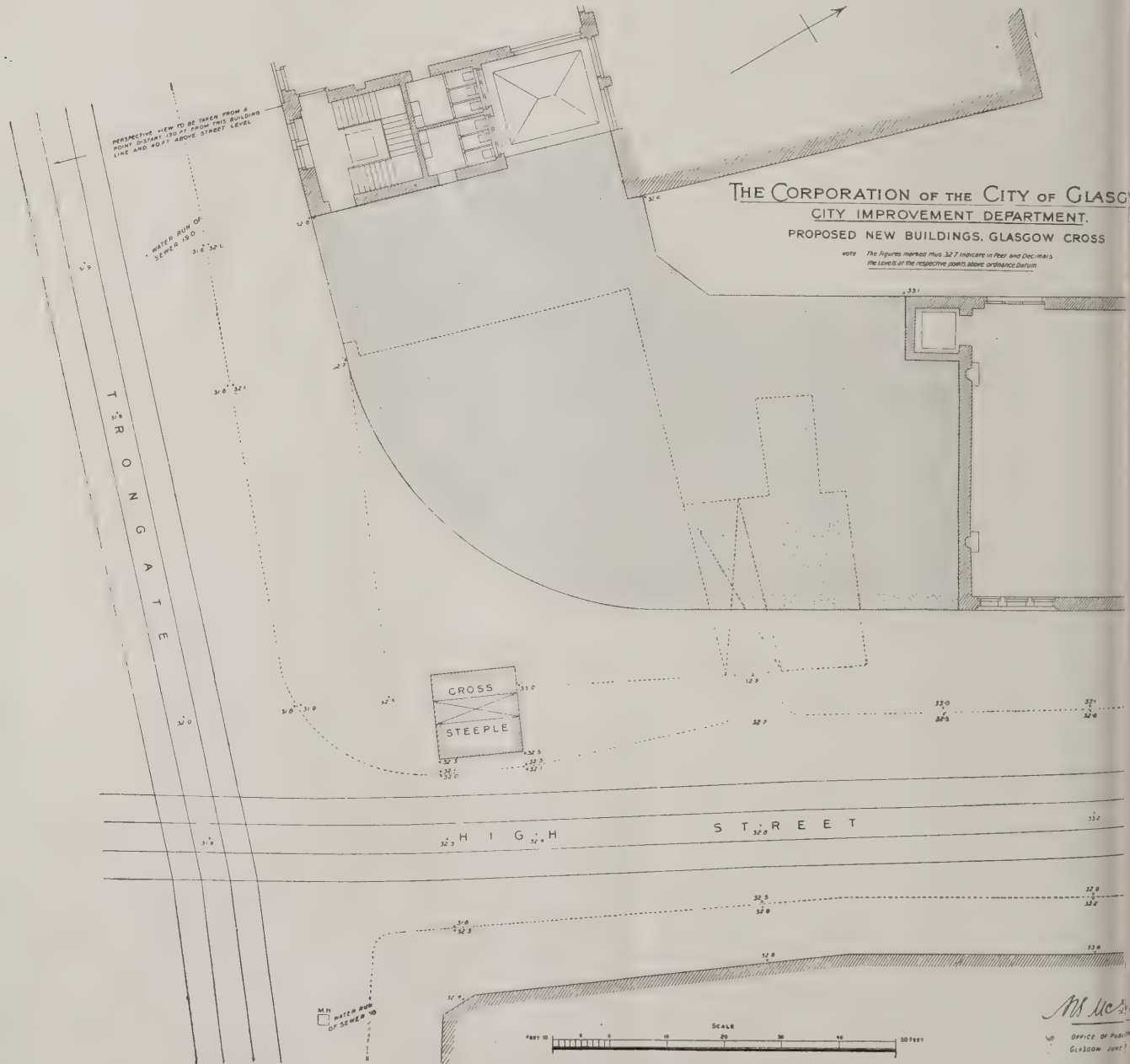


THE CORPORATION OF THE CITY OF GLASGOW  
CITY IMPROVEMENT DEPARTMENT  
PROPOSED NEW BUILDINGS, GLASGOW CROSS

Assessor or of the Corporation. The authors of the first, second, and third designs, in order of merit, will receive premiums of £50, £30, and £25 respectively.

The author of the design placed first by

the assessors will be employed as an architect to carry out the work, at a commission of 5 per cent. upon the cost of the building, including fittings, exclusive of materials and clerk of works' fees, unless, if



GLASGOW CITY IMPROVEMENT COMPETITION: SITE PLAN.



of the Corporation, with the of the assessors, it cannot be out within 10 per cent. of the stated, or unless such employment d, in the opinion of the Corpora- some other insuperable obstacle. employment will not necessarily the erection of the market cross, being a private gift, may, in the of the donor, form a separate com- In the event of the author of any ed design being employed as archi- premium will be paid to him.

Questions relating to this competi- her in regard to these instructions ditions, or in respect to the compe- nentially, are to be addressed to the erk, City Chambers, Glasgow, not an June 29, 1914.

plan of the site, reproduced here- hows, stippled, the area within the buildings must be confined, with eption of the steeple and market The frontage of the business pre- ced not rigidly adhere to the out- own, but no part of the building oject beyond it. The situation of oposed market cross is left to the of competitors. Elevations of the ys of contiguous buildings, and of eple are also reproduced herewith oposite page).

proposed buildings are intended for s purposes and must be suitable for in flats or as a whole, and must con- it least six floors and basement. All must be in line with those of the ng buildings recently erected to the f the site. A staircase, with an d passenger lift, and one set of lava- in each of the upper floors, has e been provided in the adjoining gs, as shown on the plan provided a, and these must be incorporated scheme submitted. An additional avatories must be provided on each the new building, also a goods lift, cess from each floor, and with deli- court, together with such additional s competitors may think necessary. ofs and all the floors of the build- ust be constructed of fire-resisting ils. While the purpose for which ildings is intended should regulate racter of the elevation, the impor- of the site, historically and other- should be given some consideration, the general grouping of the design e Tolbooth steeple.

drawings required are as follows, ith the exception of the block plan) e to a scale of  $\frac{1}{8}$  inch to the foot : of basement, shop floor, and one floor: one cross-section or sectional on; two elevations, to Trongate and Street respectively; one of these to he steeple and market cross; one etive (view to be taken from point ed on block plan provided here- block plan, to scale of one-sixteenth o the foot. The elevations must e adjoining buildings, to the extent bays of the front to Trongate and High Street.

ort specification of the chief mate- nd prominent features is to be sub- which is to conclude with a state- of the total cubical contents of the g, with an estimate of the cost d thereon. Such cube is to be from the foot of the foundations to ay up the roof, or, in the case of flat to 4 ft. above the upper surface of As separate items, competitors ate the estimated cost of the works ed in connection with the retention e Tolbooth steeple, and of their

design for the market cross. In addition to the outline specification of the buildings, a description of the structural work proposed regarding the steeple must also be included. The whole specification should not exceed one page of foolscap, type-written or printed.

Designs must be delivered to Mr. John Lindsay, Town Clerk, City Chambers, George Square, Glasgow, on or before Friday, September 18, 1894, marked "Trongate Reconstruction."

#### Public Hall Improvement, Blairgowrie.

Blairgowrie Town Council have decided to invite competitive designs for the improvement of their Public Hall at a cost of £2,500. Premiums of £20, £10, and £5 are to be offered.

#### School, Luton.

It has been recommended by the Higher Education Sub-Committee of Bedfordshire Education Committee that eight architects be invited to submit competitive designs for a new school to be erected at Luton. A professional assessor is to be appointed.

### THE GRAND PRIX DE ROME RESULTS.

This year's Premier Grand Prix de Rome (Académie des Beaux-Arts) has been won by M. Albert Ferran, a pupil of M. Laloux. The Atelier Laloux is still one of the biggest and most successful at the Ecole, and over a period of twenty-four years it has secured the Premier Grand Prix no fewer than eight times, thus establishing a record. The second Grand Prix has been won by M. Albert Bray, a pupil of M. Pascal. The subject for this year's competition was an Ecole Militaire.

### ENQUIRIES ANSWERED.

*Under this heading, difficulties met with in professional or business practice are dealt with by a staff of experts. Only really practical questions are desired.*

*Replies will be published as promptly as possible, and in the ordinary course no charge is made to the querist.*

*Urgent questions, however, will be answered by post in advance of publication, provided the querist encloses a postal order or stamps to the value of 1s. This sum is not to be regarded as payment for the reply, but merely as an expedition fee; and, while taking every care to ensure dispatch and accuracy, the Editors disclaim all responsibility for any delay or inaccuracy that may unavoidably occur.*

*In all cases the Editors reserve their right to publish the question and answer or not, as they think fit, and to reject any question that is deemed to be unsuitable.*

*Querists are asked to state their questions as briefly as possible, and to write on one side only of the paper.*

#### Lady Architects.

In reply to an enquiry from "Contingent Amount" (York) respecting the work and prospects of lady architects, a lady A.R.I.B.A. writes: "I know of only three lady architects in England, whose work so far has been in the domestic line. There is apparently a strictly limited demand for the work of women in this career."

#### Hydrated Lime.

F. C. T. writes: "What is hydrated lime, what is it used for, where is it made, and what are its advantages?"

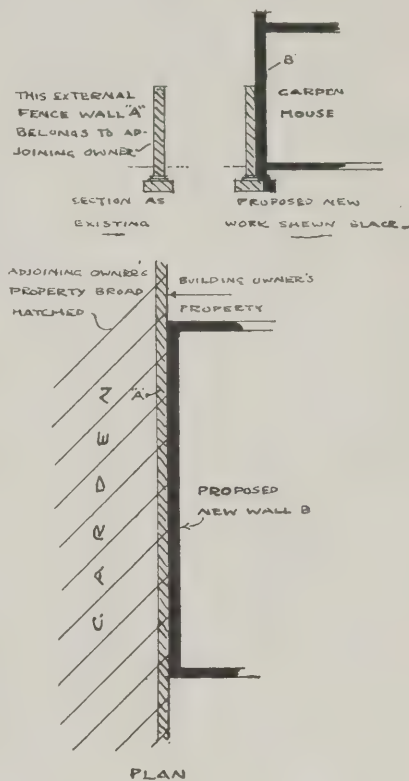
—A material which is chemically com-

bined with water is said to be "hydrated," and hydrated lime is lime which is in that condition. Calcined lime, or quick-lime, becomes hydrated when it is slaked; thus ordinary slaked lime, as used for plastering, is hydrated lime. Such a material is made wherever lime is slaked, and it is used for plaster, mortar, etc. If quicklime is not slaked before being used it will blow or blister in the work, and disfigure it, or, in the case of mortar in walls, even cause serious damage.

F. I. C.

#### "Footings" on Adjoining Owner's Land.

R. (London) writes: "The accompanying diagram shows two adjoining gardens separated by the external fence wall 'A.' The building owner desires to erect the wall 'B.' (1) If he get the District Sur-



veyor's certificate to omit half the footings, is it necessary to serve a notice on the adjoining owner? (2) If so, at what distance from the wall 'A' can the wall 'B' be built without such notice being required? (3) The London Building Act, 1894, Part VIII., Sections 87 and 88 (9), seems to be rather ambiguously worded as regards this, and there is no recognised form applicable to the case."

—(1) I am of opinion that no legal notice is required, unless, indeed, it should be found necessary to underpin the footings of the adjoining owner's wall under Section 87 (6); but it will probably save some "heartburning" if the neighbouring owner be informed of what is proposed to be done.

(2) The new wall may be in close contact with the existing fence wall, provided, of course, that it is placed entirely within "B's" boundaries; and here again it is clearly desirable to inform "A" of what is intended—he may claim that the land is his to the outside of his footings!

(3) I read the last paragraph of Section 87 of the London Building Act, 1894, as being merely a Ministerial direction to the District Surveyor.

F. S. I.

#### The Planning of Middle-Class Houses.

J. A. G. (Shoreham) writes: "Can you refer me to any articles in your Journal in



which the planning of what I may call lower middle-class houses—costing, say, from £450 to £500—is discussed? There seems to me to be little or no variety either in the planning or in the elevations of houses of this class; but it is the planning that concerns me most, and I think that some good practical advice on the subject would be exceedingly useful."

—An admirable article on "Planning the Suburban Middle-Class House," by Mr. Edwin Gunn, A.R.I.B.A., appears in "Specification" of the current year. As a preliminary to considering the essentials of the problem of superseding the "back-addition" type of house, the author traces the evolution which the type has so far undergone. In its first stage, when cottages built in rows with front and back room only on each floor began to have an "off-room" added projecting to the rear (literally as a back-addition), the type is practically unobjectionable. So long as the projection of the back additions does not exceed the space between them, they are comparatively harmless. With less simple requirements, and the growth of a general desire that houses should be concentrated on not more than two floors, eliminating half-basements and attics, it tends to expand in length, until, in some more recent types, the back-room of the main block overlooks a narrow alley sadly deficient in light, air, and cheerfulness. Mr. Gunn shows how the planning of such houses has advanced step by step until he reaches the problem as it at present stands, about which he concludes that the only right way to approach the problem of the middle-class house is by a careful survey of the mode of life of the average suburban family, "for," he says, "it must be remembered that it is the average that must be dealt with in houses which (like ready-made clothes) are designed for no specific occupant." The whole subject is very luminously discussed, and the article is illustrated with seven plans, illustrating the various stages of development. The volume in which it is included is published by Technical Journals, Ltd., Caxton House, Westminster, price 3s. 6d. net.

## TRADE AND CRAFT.

### *Osram Drawn-Wire Lamps and Fixtures.*

A catalogue of the half-watt Osram wire-drawn lamps and specially designed electric-light fixtures for use therewith, which has been issued by the General Electric Co., Ltd., 67, Queen Victoria Street, E.C., calls special attention to the reduced prices which are now listed, and to the success of the laboratory and research work in making available the lower candle-power units for which there has been so much demand. Whereas formerly Osram half-watt lamps were only supplied in seven sizes, ranging from 300 to 1,500 watts, they are now manufactured in twelve separate sizes in the standard type alone, which range from as low as 100 watts for 50-65 volts right up to 1,500 watts (3,000 c.p.) for 100 to 260 volts, besides another range of four sizes in each of the projection types. Consuming only half a watt per candle-power, the Osram half-watt lamp offers great economy in running costs. Its filament does not burn in vacuum, the medium employed being nitrogen or similar inert gas, and its high efficiency is due to the fact that the temperature of the filament of a nitrogen-filled lamp, when incandescent, can be raised to an enormous temperature, at which the light closely resembles that of the sun.

Under normal conditions, the average burning life of this lamp is 1,000 hours, with almost constant candle-power during all the time, while the distribution of the light is almost perfectly uniform. The filament consists of one continuous length of pure tungsten drawn wire formed into a series of spirals specially mounted and surpassingly strong. The fixtures shown in the booklet are all in the exemplary taste that one expects from this firm.

### *B.T.H. Co.'s New Telephone Number.*

The British Thomson-Houston Co., for the convenience of their customers and themselves, have had two additional lines installed in their private telephone exchange at Mazda House, 77, Upper Thames Street, London, E.C. The telephone number has also been changed, and, instead of ringing up Bank 5561-2-3, as heretofore, readers should note that all future calls must be made to one or other of the following numbers: Central 10434, 10435, 10436, 10437, 10438.

### *Waterproofing Sewage Works.*

For the large sewerage works at Adare, on Lord Dunraven's estate, the powder "Pudlo" has been specified to waterproof all the cement work.

### *North Cambridgeshire Hospital, Wisbech.*

Additions to the North Cambridgeshire Hospital, Wisbech, are being supplied with Shorland's double-fronted patent Manchester stoves with descending smoke flues and patent exhaust roof ventilators, by Messrs. E. H. Shorland and Brother, Ltd., of Failsworth, Manchester.

### *School of Art Wood-Carving, South Kensington.*

We are informed that the students of the above school have gained four silver medals and first prizes at the exhibition now being held at the Carpenters' Hall by the Worshipful Company of Carpenters.

## THE BUILDING TRADE CRISIS.

The result of the ballot of the provincial builders as to whether there will be a national lock-out had not been declared when we went to press. The ballot was asked for by the London Master Builders' Association in accordance with the rules of the National Federation of Building Trades Employers of Great Britain and Ireland. Before a national lock-out can be declared a two-thirds majority is necessary, and it is stated that this has been secured. A lock-out, if one is declared at the half-yearly meeting of the National Federation of Building Trades Employers, which is being held at Cardiff to-day, will in all probability take effect on August 1.

### BUILDERS' BENEVOLENT INSTITUTION.

The sixty-seventh annual general meeting of the above institution was held at Koh-i-Noor House, Kingsway, on July 22, Mr. Frederick Shingleton, M.V.O. (President), in the chair. The annual report and audited accounts for the year ending July 7, 1914, were read and approved. The following elections took place: President, Mr. George R. Holland (Messrs. Holland and Hannen and W. Cubitt, Ltd.); treasurer, Mr. Frank May, J.P. (Messrs. Holland and Hannen and W. Cubitt, Ltd.); and the members of the Committee of Management, who retired by rota and were eligible for re-election

## SELECTED ETCHINGS PIRANESI: SECOND SERIES.

Piranesi at once informs and impresses the wealth of detail which he has had been no more than the laboriously accurate copying, and unrelated and uncomposed, the would have been prized for its value. But Piranesi's legacy to infinitely more precious, in that to consummate draughtsmanship, imaginative power of almost the order. Piranesi drawings, always interesting, are in some instances those not few, enthralling in their pictorial value, nor for their poetic that these selections have been Piranesi delighted to call himself architect; and an architect he was, in not in fact. It is with a view to a natural interest that these collections have been made. Series II. shows half architectural designs, four- and Roman buildings and sites, and a score of vases, pedestals, and other decorative or accessory designs; and besides, an interesting medallion of Piranesi himself, so that one can see in what manner of man it was that put out this generous flood of incomparable etchings. His work has been hitherto accessible to all but the wealthy, for two half-crowns, the humblest of architectural draughtsmanship possess himself of a hundred or more fully chosen examples of this incomparable master collected into two elegant volumes.

Selected Etchings by Piranesi. With an Introduction by C. H. Reilly, M.A., F.R.I.B.A., Roscoe of Architecture, The University of Liverpool. II., 50 Plates, printed on art paper, 1/2 ins. price 2s. 6d. net. Technical Journals, Ltd., House, Westminster.

## PROJECTED NEW WORKS.

*Continued from page 87.*

### *London*

Subject to compliance with specified conditions, consent has been given by the L.C.C. to the following works:

Hampstead.—Erection of 44, Street, Hampstead, on application of Hammond, for A. Bretzfelder.

Kensington (S.).—Addition to Victoria and Byam Art School at rear of Victoria Gardens, Kensington, on application of T. P. Figgis, for R. Vicat Cole.

Lewisham.—Erection of ten houses, Mayow Road, Lewisham, on application of Edmondsons Ltd.

Marylebone (W.).—Erection of building upon the site of Nos. 362, 364, 366, Oxford Street, and buildings at rear abutting in Gee's Court and at Place Mews, upon application of Edmondsons and Sons, for J. Lyons and Co.

Newington (W.).—Erection of building, Walworth Road, Newington, on application of Buckland and Garrard for the London Railway Company.

Strand.—Erection of a building upon the site of Nos. 19-22, St. James's Street, and Nos. 23-25, Ryder Street, Strand, on application of P. Hoffmann.

Wandsworth.—Erection of food store shops, Charlmont Road, Tottenham, on application of E. A. Tylor, for J. Farwig.

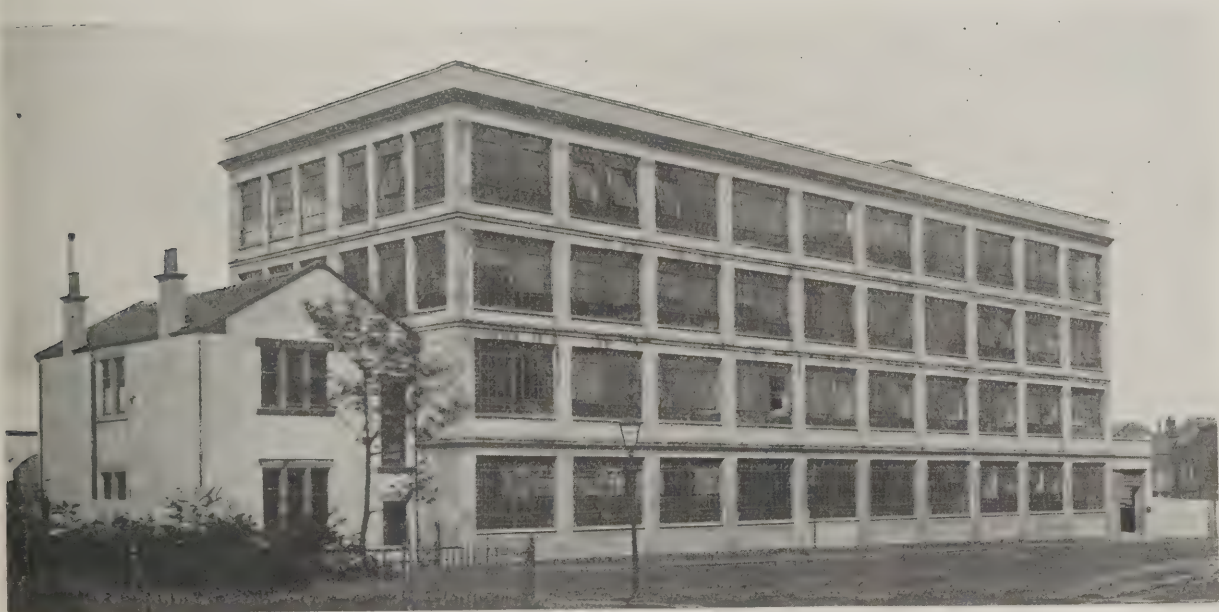
Westminster.—Erection of 12 houses, Square, Westminster, and houses adjoining, on application of G. Muntzer.

*Continued on page xx.*



# CONCERNING REINFORCED CONCRETE ON THE KAHN SYSTEM.

*Two Facts and a Deduction.*



ADMINISTRATION BUILDING FOR MESSRS. G. & J. WEIR, LTD.

## FACT NO. 1.

"As to economy there was no question about it. One of the works I had in hand in this material cost about 2d. a cubic foot for the carcase. You could not touch that under certainly twice the sum of money in any other material."

(Sir Henry Tanner.)

## FACT NO. 2.

"The beam reinforced with the plain rod whereon the diagonal members were firmly fixed (Kahn System) carried a load 21% in excess of the beam reinforced with plain rods and loose stirrups."

(Report of French Govt. Test.)

## THE DEDUCTION.

Reinforced Concrete on the Kahn System is the most economical and efficient method of construction.

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**The Trussed Concrete Steel Co., Ltd.,**  
—52, Caxton House, Westminster, S.W.—

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N.B.—The Trussed Concrete Steel Co., Ltd., will be glad to collaborate with Architects on any construction, and place at their disposal the skill and experience of their staff of specialist designers.



(Continued from page 90.)

A new church is to be built at Carterton, Oxfordshire.

A new school to accommodate 740 children is to be erected on the Old Oak Estate, Hammersmith, for the L.C.C.

Southend Town Council have passed plans for the erection of 127 new houses and shops.

The Swansea Borough Architect (Mr. E. Morgan) has been instructed to prepare plans for permanent buildings to be used as Corporation central stores.

The Local Government Board has approved the application of Newport Corporation to prepare a town-planning scheme for the St. Julian's district, under Part II. of the Act of 1909.

The parishioners and congregation of St. Stephen, Lewisham, of which the late Canon Rhodes Bristow was vicar for thirty years, have decided to erect a parish hall to his memory at an estimated cost of £3,000.

The Works Committee of the Swindon Town Council have approved the following plans: Messrs. Tydeman Bros., greenhouse, 43, Alfred Street; Mr. F. Smith, shed for storing carts and traps, rear of

*Houses, Maltby, Yorks.*

The Plans Committee of the Rotherham Rural District Council have approved of plans for a golf clubhouse, Sitwell Park, thirteen streets and ninety-six houses at Maltby for the Maltby Main Colliery Co., thirty-three houses in model village for the same owners, and other properties.

The Town-planning Committee of the Wrexham Rural District Council reported that a conference between the District Council and the Town Council had been held to consider the best means of securing co-operation between the two authorities in the preparation of town-planning schemes for the borough and the rural district, and it was resolved to seek the advice of the Local Government Board and to obtain the views of Professor Adshead, of the Liverpool School of Town-Planning, as to the engagement of an expert to act for the two authorities in the event of the Board being unable to advise on the preparation of the schemes. The Engineer (Mr. J. Price Evans) recommended that a permanent scheme should be carried out as quickly as possible, and asked for permission to include the drainage of Gresford in the scheme, as building operations were likely to be carried on in that district.

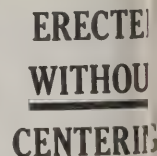
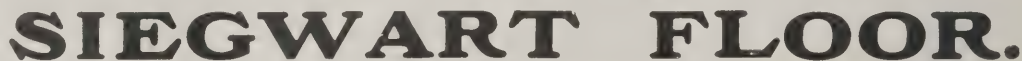
The Housing Sub-Committee of the Health Committee of the Bradford City

Church, Gillingham.

A new church of St. Augustine built at Gillingham, Kent. This will be erected on a site in Rockingham purchased by the Rochester Society and a design has been made by Mr. Temple Moore. The cost of the first part of the building, which is now commenced as soon as possible, is £5,500.

The Clydebank Dean of Guild have passed plans for Messrs. Beardmore and Co., Ltd., to extend their existing condenser-house, erect a new boiler-house, the cost being over £1,000. Mr. B. C. Milne, joiner, Clydebank, was granted to erect two semi-detached villas in Street at a cost of £1,600.

The Mansfield Guardians are preparing a scheme for the enlargement of the workhouse which will involve an outlay of about £8,000. West of Chesterfield Road, is to be adapted for a purpose and separate houses and a reception hospital for children are to be built behind it. It is also proposed to utilize the present board-room and clerk's office to build a new board-room and office. The cost of £3,500.



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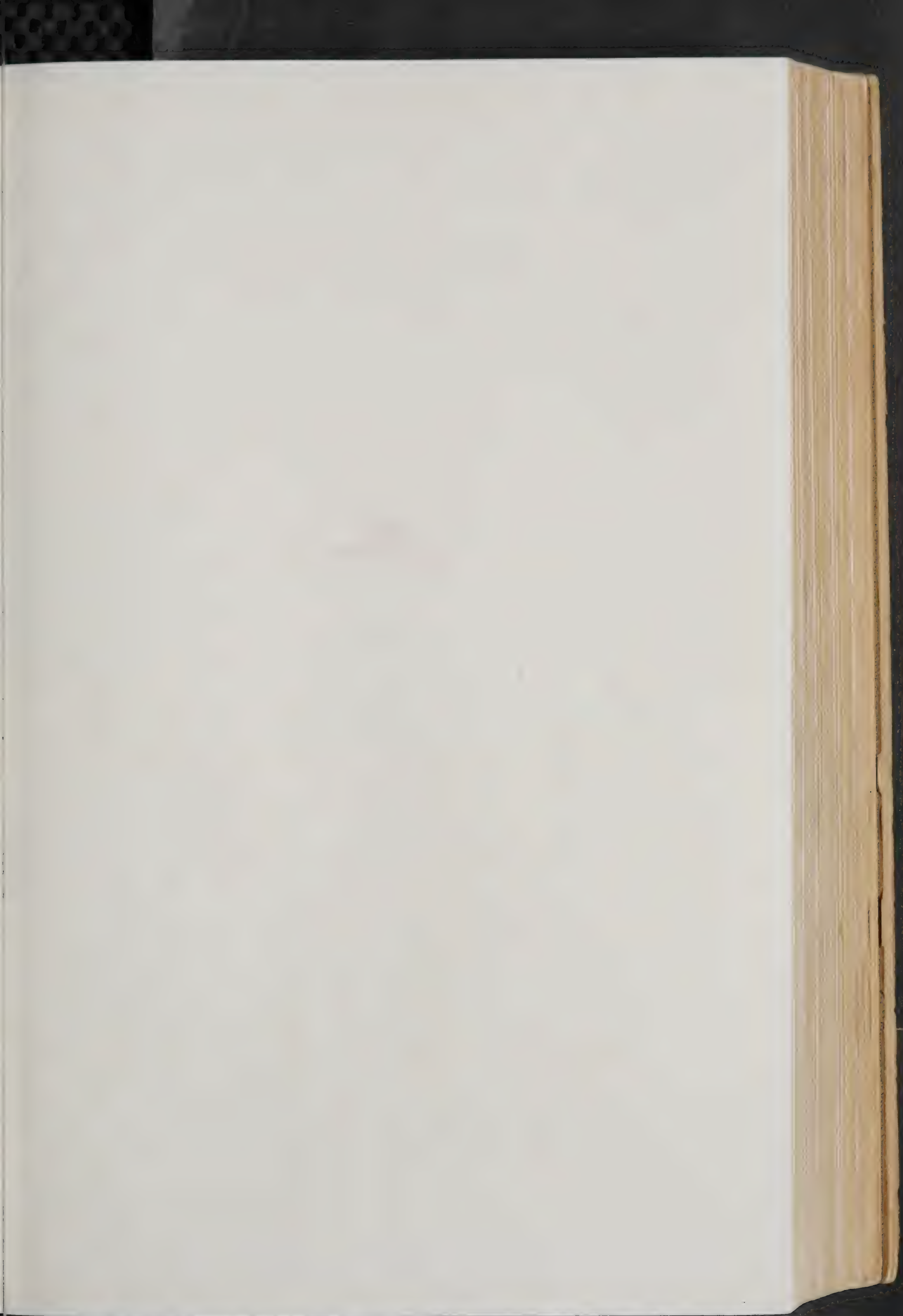
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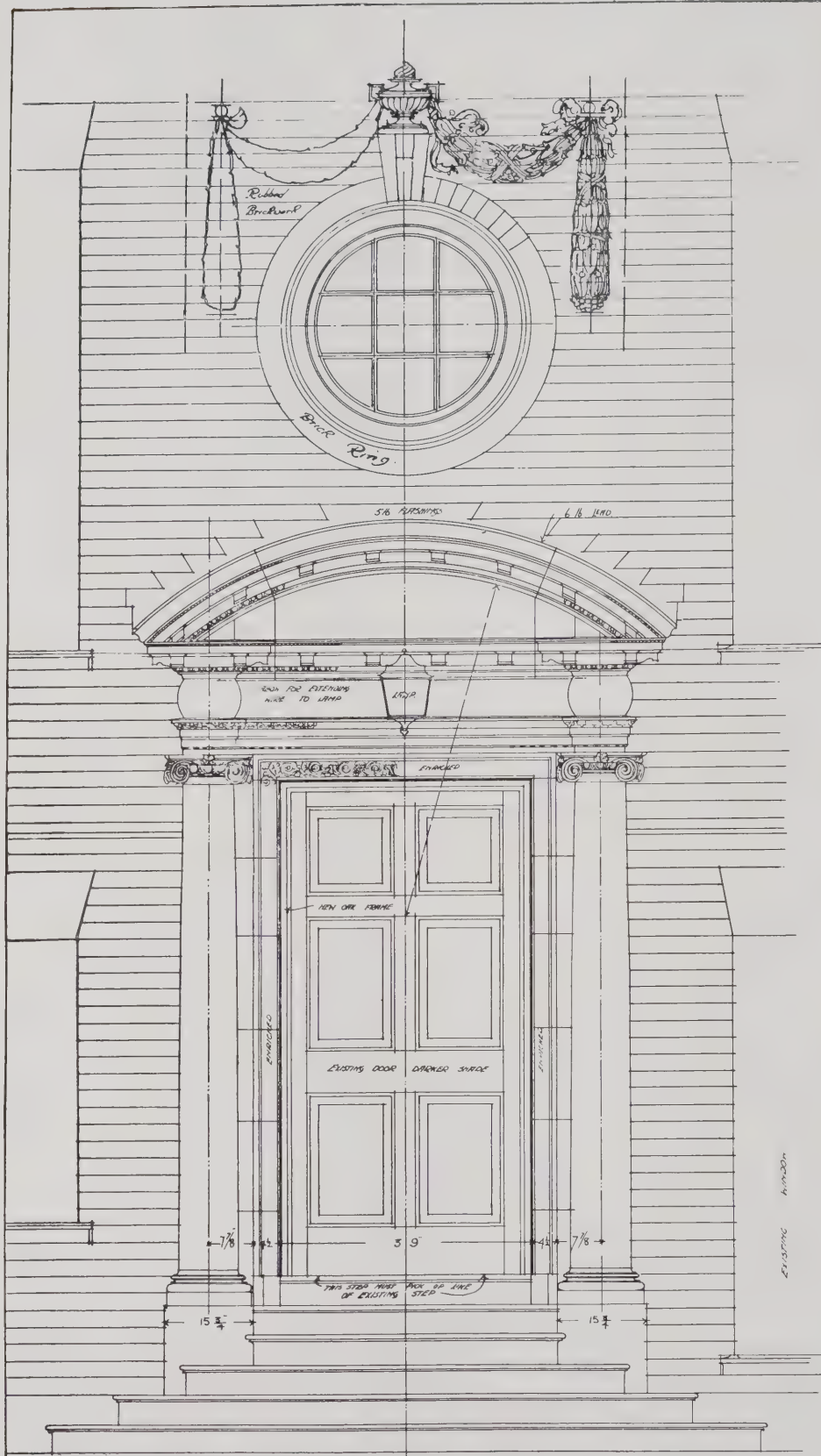
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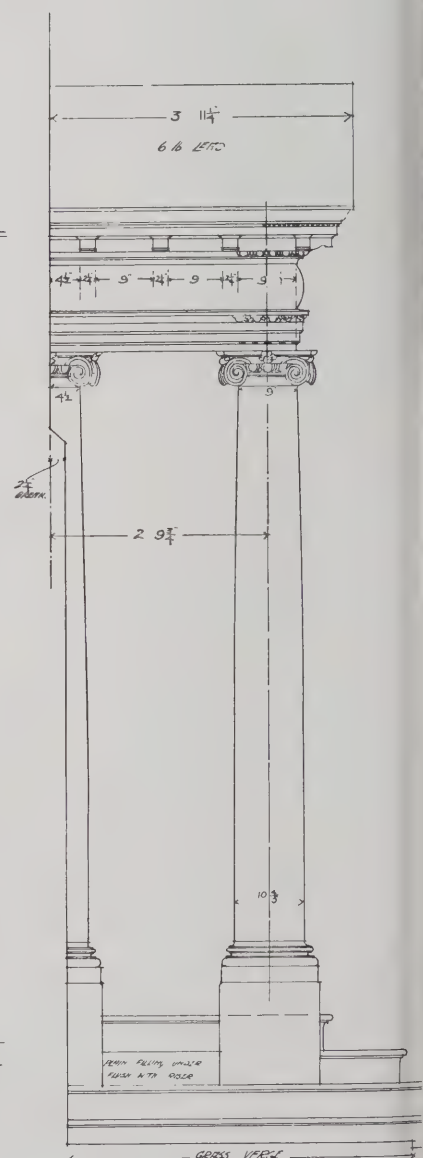








FRONT ELEVATION



SIDE ELEVATION

WORKING DRAWINGS BY WELL-KNOWN ARCHITECTS (NEW YORK)

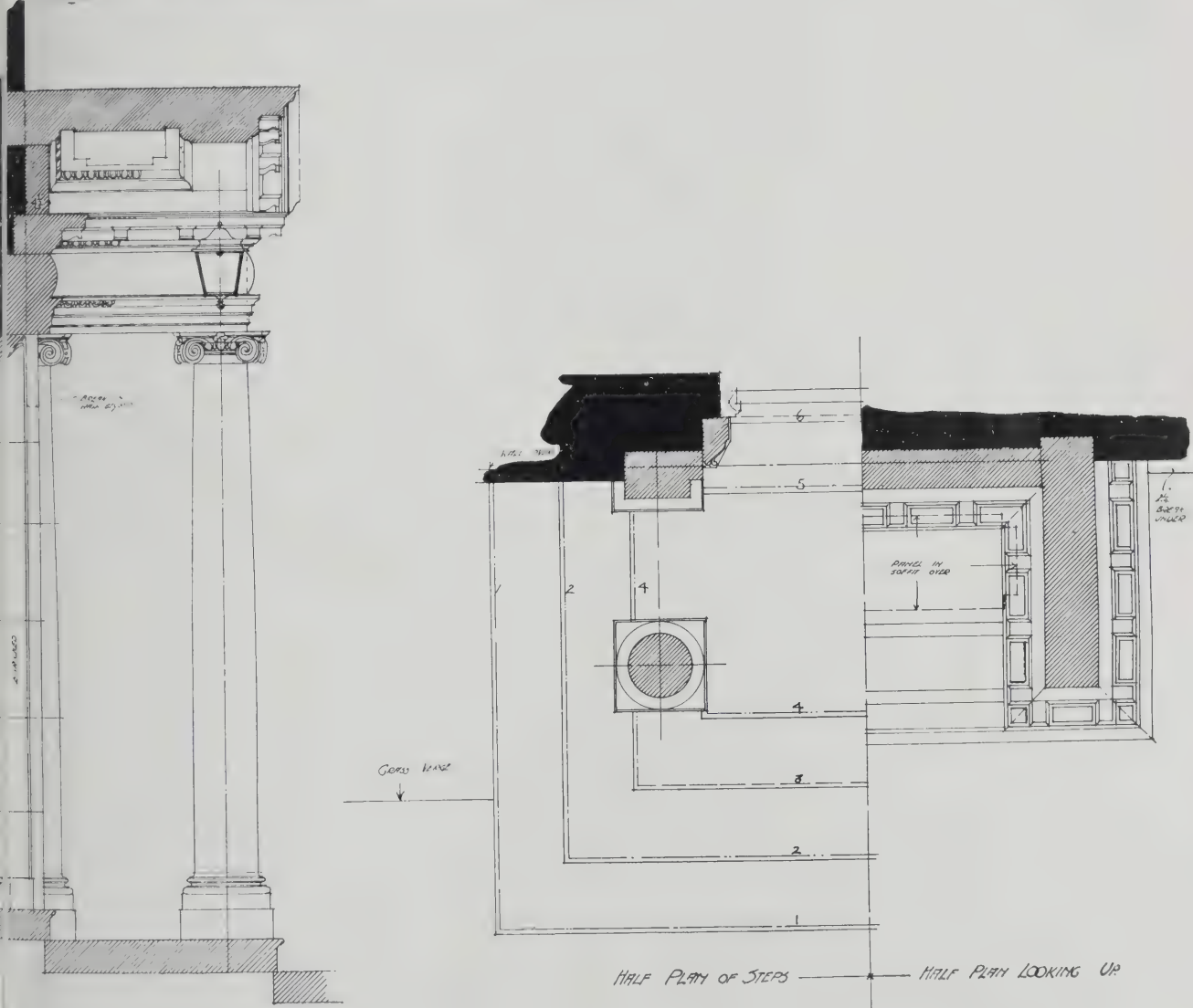
C. H. B. QUINN



FOR A. M. MIRRIELES ESQ —  
OF FRONT ENTRANCE —

21 GREAT PETER STREET, — WESTMINSTER, SW. — July 17<sup>th</sup> 1913. —

1 2 3 4 5 6 7 8 9 10 FEET



SECTION

PLAN

"EMPLEHILL," HAMPSTEAD: DETAIL OF FRONT ENTRANCE.  
ARCHITECT.









MODERN DOMESTIC ARCHITECTURE. XXIX.—"TEMPLEHILL," HAMPSTEAD: DETAIL OF FRONT ENTRANCE.  
C. H. B. QUENNELL, F.R.I.B.A., ARCHITECT.









COTTINGHAM'S DESIGNS FOR IRONWORK. XX.—CHIMÆRA FEET, LAMPS, BORDERS, ROSETTES, MASKS, AND  
SUNDRY ORNAMENTS.









Doorway, Ancaster House, Richmond Hill, Surrey.



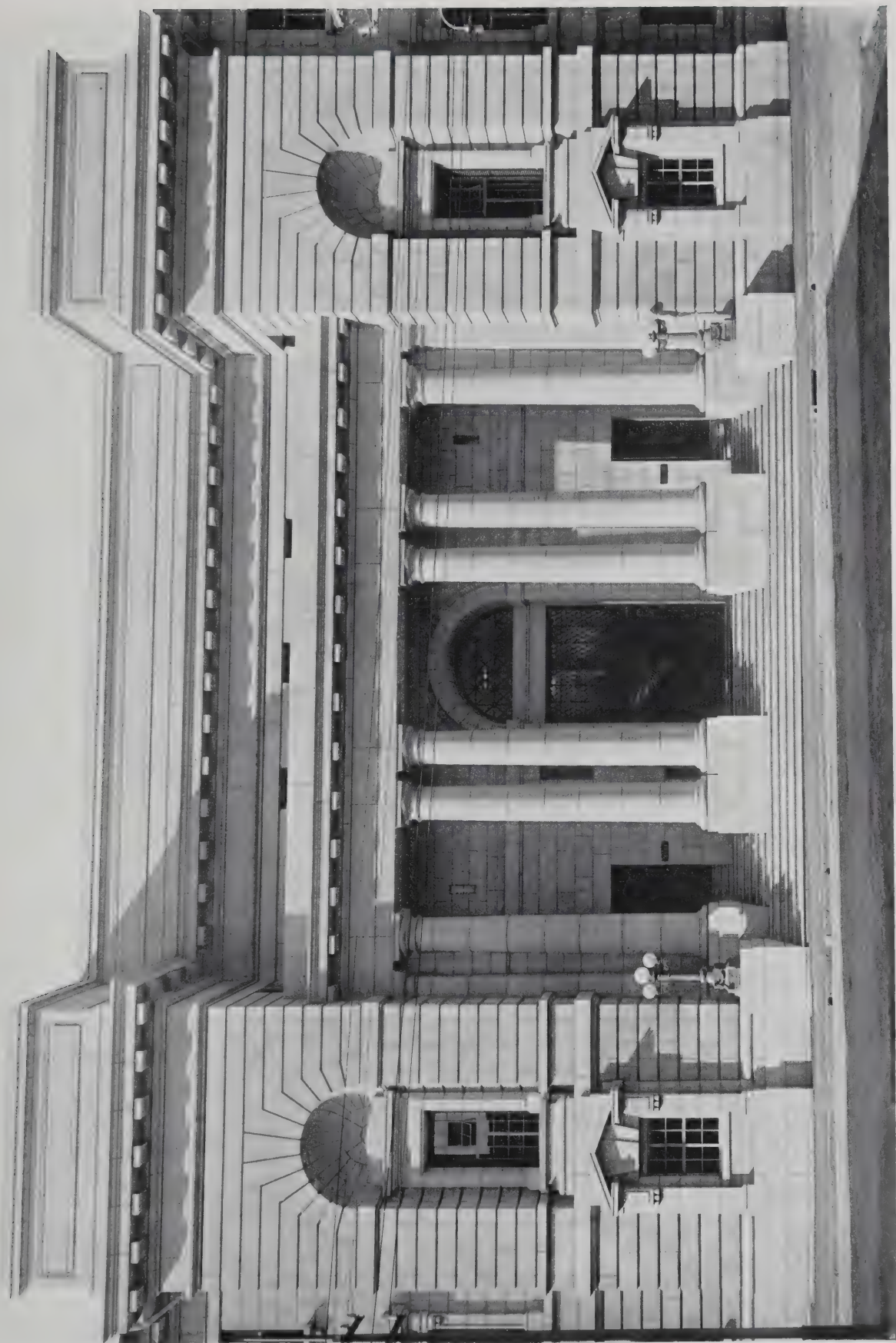
Portico in Ruskin Park, Denmark Hill, London (a Fragment of Captain Wilson's House).

SMALL HOUSES OF THE LATE GEORGIAN PERIOD. XX.—DOORWAY AND PORTICO DETAILS.









CURRENT ARCHITECTURE. LXXIII.—NEW LAW COURTS, CAPE TOWN; PUBLIC ENTRANCE IN KEEROM STREET.  
W. HAWKE, F.R.I.B.A., AND W. N. MCKINLAY, ARCHITECTS.









CURRENT ARCHITECTURE. LXXIV.—NEW LAW COURTS, CAPE TOWN: FAÇADE TO VICTORIA STREET.  
W. HAWKE, F.R.I.B.A., AND W. N. MCKINLAY, ARCHITECTS.







HOUSING, TOWN PLANNING, &c., ACT, 1909.

Showing the Detailed Steps of the Various Stages in the Promotion of such Schemes in Accordance with the Town Planning Procedure Regulations (England and Wales), 1910.  
Compiled by R. IVESON DENHAM, Assistant Solicitor to the Corporation of Huddersfield, and L. ST. G. WILKINSON, M.Sc., A.M.I.C.E., an Assistant Engineer to the Corporation of Huddersfield.

ABBREVIATIONS.—L.A. = Local Authority. L.G.B. = Local Government Board. C.C. = County Council. Article or Art. = The Articles of the Town Planning Procedure Regulations (England and Wales), 1909. Act of 1909 = The Housing, Town Planning, &c., Act, 1909. Scheme = An Owner's Scheme proposed to be adopted by an L.A. under the Act of 1909. Authorities for the various Steps appear in Square Brackets and Cross References to the various Columns appear in Round Brackets.

| No. and Nature of Stage.                                                             | Resolutions of L.A.                                                                                                                                                                                        | Notices and Advertisements.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Meetings and Conferences. |               | Maps and Documents Deposited for Public Inspection.                                                                                                                                                                       | Information to be Furnished to L.G.B. by Clerk to L.A. |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Action by L.G.B.                                                                                                                                                                                                                                 |
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|                                                                                      |                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Nature.                   | How Summoned. |                                                                                                                                                                                                                           | Prepared by Surveyor.                                  | Prepared by Clerk to L.A.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                  |
| Column 1.                                                                            | Column 2.                                                                                                                                                                                                  | Column 3.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Column 4a.                | Column 4b.    | Column 5.                                                                                                                                                                                                                 | Column 6a.                                             | Column 6b.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Column 7.                                                                                                                                                                                                                                        |
| <p><b>STAGE 8.</b></p> <p>Final Stage consequent on L.G.B.'s approval of scheme.</p> | <p>On receipt of copy of order finally approving scheme resolution to be passed approving Town Planning Committee's action in taking steps under Article xxvii. (a), (b) and (c).</p> <p>[Art. xxvii.]</p> | <p>(a) Immediately on receipt of copy of order approving scheme, advertise in Local Paper that L.G.B. have approved scheme and particulars as to inspection of order and map referred to in Order.</p> <p>[Art. xxvii. (a)]</p> <p>(b) Not earlier than <b>SECOND DAY</b> after first publication of above advertisement, serve copy of order and notice required under Art. xxvii. (a) upon Owners, Lessees, and Occupiers and other interested Councils; also upon C.C. if any main road affected.</p> <p>[Art. xxvii. (a)]</p> <p>(c) Send copies of above order and notice, where necessary, to (1) Board of Agriculture and Fisheries; (2) Commissioners of Works</p> <p>[Art. xxviii.]</p> |                           |               | <p>For <b>THREE MONTHS</b> from date of order approving scheme deposit such order and a copy of any map or plan referred to in such order for free explanation and inspection by any person.</p> <p>[Art. xxvii. (b)]</p> |                                                        | <p>Within <b>FOURTEEN DAYS</b> of receipt of order approving scheme from L.G.B. send to L.G.B. statutory declaration containing information required by Art. xxxi. and exhibits in proof of compliance with the requirements of Art. xxvii. (a), [Arts. xxvii. (a) and xxxi.] The exhibits required are (1) Copy of Order; (2) Copy of Form of Notice served under Article xxvii. (a). (See Stage 8, Col. 3 (b)); (3) Copy of Paper containing Advertisement under Art. xxvii. (a). (See Stage 8, Col. 3 (a)).</p> <p>[Art. xxxi.]</p> | <p>The scheme from the date of approval by the L.G.B. has effect as if it were enacted by the Act of 1909, and can only be varied or revoked by a subsequent scheme or by an order of the L.G.B.</p> <p>[Sect 54 (5) and (6) of Act of 1909]</p> |

CHART OF TOWN PLANNING PROCEDURE FOR OWNERS' SCHEMES, TO BE ADOPTED BY LOCAL AUTHORITIES—STAGE 8.





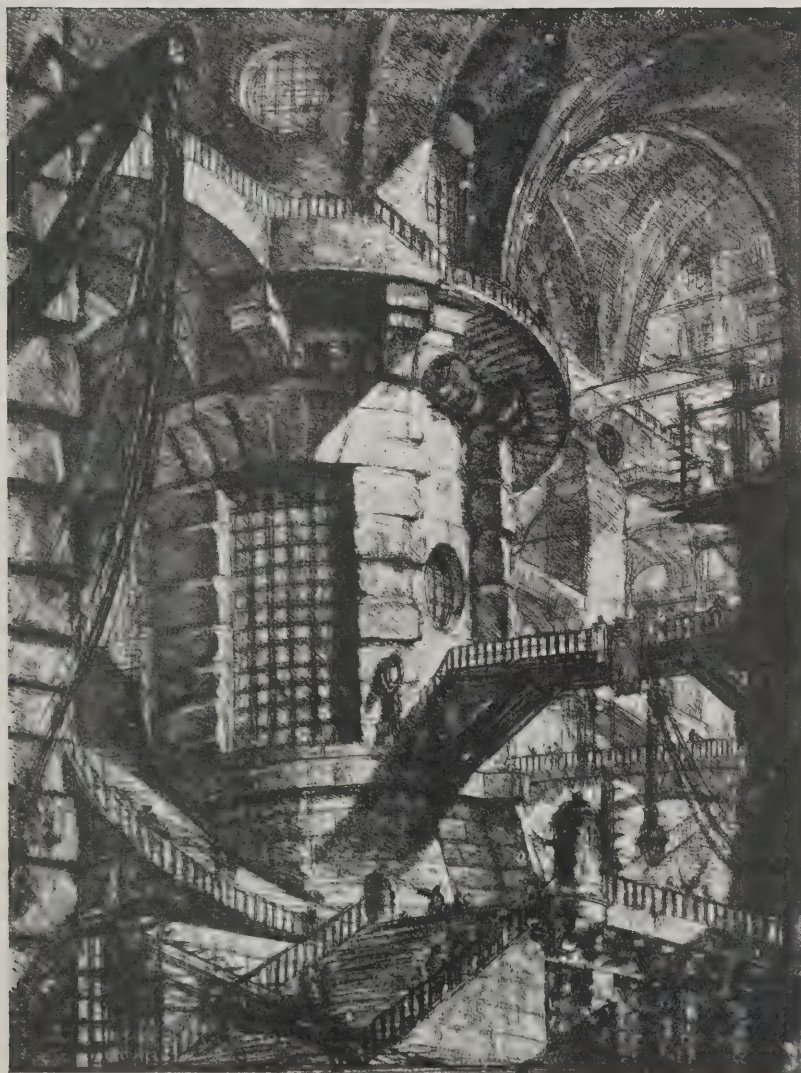


THE  
ARCHITECTS' & BUILDERS'  
JOURNAL.

Wednesday, August 5, 1914.

Volume XL. No. 1022.

No. 96.



(From Piranesi.)



# THE ARCHITECTS' & BUILDERS' JOURNAL.

AUGUST 5, 1914.

CAXTON HOUSE, WESTMINSTER.

VOLUME 40. No. 1022.

## EDITORIAL.

THAT the small band of delegates of the London Master Builders' Association who have explained the position in various centres in the provinces have stated a strong case very effectively is evident from the result of the ballot upon the question of supporting the Association by proclaiming a general lock-out. With 7,319 of the total membership of the National Federation voting in favour of the lockout, and only 1,739 against it, the executive council had no alternative to sending an ultimatum to the several operatives' unions that remain obdurate. It will be seen that the wording of this document, of which the text is reproduced in our report of the Cardiff meeting, is studiously moderate, and its well-tempered and reasonable appeal to the workmen's sense of justice ought in reality to have the effect of averting a lockout rather than that of procuring one. Wisely, too, the date at which the lockout will be declared, if, unfortunately, it is found to be necessary, has been put forward to August 15. The unionists are thus given ample time to think the matter over; and, for our part, we are by no means without hope that the nine or ten London unions that are still holding out will realise the wisdom of coming to terms. It is quite plain that the London dispute is on the point of collapsing, and it is to be earnestly hoped that the men will not let slip this last great opportunity of yielding with a good grace.

It really seems as if the burden of the Covent Garden Estate were too much for the various purchasers whose names, intentions, etc., have recently formed the subject of so many bewildering reports. No sooner is Mr. Mallaby Deeley succeeded—apparently—by Sir Joseph Beecham than a daily paper informs us that “those into whose hands the estate has passed” have approached the London County Council with a view to the latter acquiring the property. The plural “those” increases the mystery attached to the transactions between the Duke of Bedford, Mr. Mallaby Deeley, and Sir Joseph Beecham. Possibly it refers to another group of purchasers altogether, or perhaps it is merely looseness of expression. At any rate, the L.C.C. has met the advance with a blank refusal; but the Chairman of the Improvements Committee “ventured to hope that the owners might see their way to rearrange the property on a better and more convenient plan.”

The Report of the Special Electricity Committee of the L.C.C., based on a report prepared by its experts in March last, embodies an interesting scheme for the establishment of a new Electricity Authority for the Metropolis. The new Authority would consist of thirty-one members, of whom the majority would represent the L.C.C. and the rest the surrounding county councils and county boroughs. The objects of

this body would be (1) the gradual establishment of large generating stations down the river, from which supplies in bulk would be given to such existing undertakings as wished it, and (2) the new Authority would have the right to acquire by agreement existing undertakings, whether municipal or company, and combine them so as gradually to bring about a unified scheme. To give effect to this recommendation a Parliamentary Bill will, of course, be necessary, and it is proposed to promote this during the next session.

In its essence, the scheme is, and is intended to be, a compromise—an attempt to combine municipal and private enterprise. The power of compulsory purchase would, we gather, be exercised as little as possible. The management of the undertaking would be handed over to a company for a period of fifty years, and the proper control of that company and the safeguarding of public interests a more or less permanent technical committee would be appointed. Much, of course, depends upon the attitude of existing companies, whose inability to agree among themselves has hitherto been a stumbling block to scheme unification. It is believed, however, that these are unfavourably disposed towards some scheme of concentration such as this, which certainly has the appearance of a disinterested effort to secure greater efficiency in the supply to the public without doing injustice to private commercial undertakings. The proposal to erect more generating stations down the river, however, is pretty sure to be opposed in the interests of Greenwich Observatory, whose operations are also seriously affected by the Council's existing generating station.

An interesting lecture on Dublin Housing was recently delivered by Mr. John Cooke at the Exhibition, in the course of which he said that the present housing problem was largely a heritage of the city had received from the builders of the eighteenth century. This strikes us as a little hard on the latter, who could not have foreseen the splitting of their houses into tenements by nineteenth-century landlords, to meet a new set of industrial conditions, nor the curiously lop-sided policy of recent Administrators who have covered the country with comfortable cottages for agricultural labourers, and left the Dublin people to work out their own salvation. The exact opposite has happened in this country, where urban housing has been immeasurably improved, and that of the rural districts is only beginning to be considered. Which policy of preference has been the more right or the less wrong is not for us to decide, but certain disclosures from a recent inquiry into Dublin housing suggested that the matter had been let alone for a good deal too long.



replanning of the city is a big problem, but we think that the requisite architectural wisdom for its solution will be found among the designs submitted for the Aberdeen's prize, and that the task will soon be in hand with the necessary vigour.

What Architectural opinion is surely if slowly beating the community is manifest from the terms which the Admiralty have offered a site at Greenhill Hospital for the Captain Scott memorial. If the general public had remained indifferent to such matters, apathy would be only too faithfully reflected by the authorities. We have, therefore, the greater justification in noting the Admiralty's stipulation that the memorial shall be in keeping with the character of the architectural surroundings. On this point "experts" are to be called into consultation, and—apart from the fact that we have often advocated—before the final position is selected a light framework model is to be made, in order that its effect may be judged *in situ*. As the sculptor has had the advantage of architectural training, he might, in this instance, have been left to his own devices; and, in any case, there is always the danger that any advisory committee will endeavour to justify its existence by making recommendations that do not necessarily imply betterment. It is a competent committee that has the courage to let the architect alone. What architects and other artists have had to endure in the past has been the conspicuous ignorance of meddling officials. No one likes any sort of interference with his work, of which, however, he is not always himself the best judge; but if such moderatorship is necessary, it had better come from "experts," if they are of the right stuff. But the word is suspect.

It is difficult to convince the average member of the community that it is either possible or desirable to make elementary schools or working-class dwellings architecturally attractive. An experiment like that carried out at Kennington by Messrs. Adshead and Massey was needed to demonstrate that the beautification of dwellings for the poorer classes was not an impossible ideal. It will, perhaps, require more than usually courageous effort on the part of a borough council or of a private philanthropist to prove that an efficient elementary school need not possess a forbidding exterior. At present, the planning of schools is, on the whole, excellent from the efficiency standpoint; but how many of them convey so much as a hint of external graciousness? With some few exceptions, they are bleak, uninviting structures with asphalted playgrounds enclosed by high and hideous iron railings; in the very worst districts, the institutionalism—which we profess to dislike—written all over the face of them emphasises the poverty and dinginess of life. As we have said, there are exceptions, but we are speaking of the general rule.

Architects have been in the past, we fear, too strongly obsessed by this spirit of institutionalism. It is really what some of them mean when they repeat the cant phrase about a building being "expressive of its purpose"—a *cliché* which Mr. Jeffrey Scott has ridiculed, with a few others that are equally familiar and therefore not less nauseating, in his splendid vindication of "The Architecture of Institutionalism." It is the chief fault of schools, hospitals, workhouses, asylums, and the like, that they are far too emphatically expressive, not so much of their purpose as of the narrow conceptions of the education authorities, governors, guardians, or what not, who command the services and control the designs of the architect, who, unless he has got into a groove, would only too glad to express the architecture of

humanity rather than the architecture of conventional prescription.

Mr. Herbert Baker, in his speech at the A.A. prize-giving, must have had some such idea as this at the back of his head when he said that "success in architecture rather meant the happy medium between control and liberty," although at the moment he was dealing with what he thought to be "a danger of going too far in a classical direction." Another remark of his which we take the liberty of detaching from its original application was: "What they all wanted was self-repression. They must all, of course, have their individual soul, but they must not plaster it on the outside of a building." Agreed; and, *a fortiori*, the building itself would be the better for similar reticence. Its exterior should not proclaim so blatantly its institutional character.

That liberal-minded educationist, Mr. G. L. Bruce, has raised a strong protest against the proposal to decrease the size of playgrounds of elementary schools. In the white paper issued by the Board of Education (to which we drew attention last week, it is proposed to substitute 16 sq. ft. for 30 sq. ft. in the case of infants, and 20 sq. ft. for 30 sq. ft. for boys and girls, "when other playground space is available," whatever that may mean. Mr. Bruce finds the expression obscure; but no doubt the Board had in mind those cases in which adjacent parks are available. It would be easy, however, to put too wide a construction on the adjacency of parks. Some authorities might consider that they were within the rules in considering that a park a mile off would absolve them from the necessity of providing a decent playground. This seems, indeed, to have been the leading thought already in some of our large towns. In Edinburgh, for instance, there is a children's park, into which adults may not intrude, and probably it was provided in merciful mitigation of the stinted playgrounds with which the Edinburgh Board so seriously discounts the dignity of its really fine school buildings. In the matter of playgrounds the London education authority has been hitherto superior to Edinburgh; but now, according to Mr. Bruce, London is actively engaged in getting rid of the playgrounds which a year ago she plumed herself on acquiring. For a secondary school an acre is needed for each hundred children, but one acre is now considered a sufficient site for an elementary school of a thousand! Clearly this ought not to be.

Marylebone's new Town Hall marks an important stage in the government of the borough, inasmuch as all the administrative offices will for the first time be included under one roof. At present the various departments are housed in six different parts of Marylebone, to the great inconvenience of the rate-payers. Furthermore, the building itself promises to be fully worthy of a borough, of which the population is nearly 120,000, and the rateable value over £2,000,000. Mr. Cooper's perspective and plans were published in the Journal when his design was accepted, and few will gainsay the latter's essential dignity.

The site of the Angel of Marylebone Road and Gloucester Place was purchased from Lord Portman in 1912 for £39,200, and lies just westward of the area that was once famous as "Marybone" Gardens. This ground is now covered by Devonshire Place, Hardwicke's church (built exactly a hundred years ago), Beaumont Street, Devonshire Street, and Upper Wimpole Street; it consisted of eight acres, and was bounded on the south by Bowling Green Lane, now known as Weymouth Street, and on the east by what is now Harley Street. The reputation of the Gardens, as a rival to Vauxhall, dated back to the Restoration, and for a few years near the end of the eighteenth



century they acquired an additional glory in the form of a medicinal spring. But a building era began about 1780, and its glories departed.

In the Victorian age Marylebone suffered, in common with other parts of London, from uncontrolled building. The drab and commonplace was only varied by such fantastic efforts at originality as Madame Tussaud's. But the day of better things has already dawned. The new offices of the Metropolitan Railway, the Workhouse opposite the new Town Hall, the new Baker Street Station, the stately hotel that, rather unfortunately, spoils the approach to the Great Central Station, almost innumerable blocks of shops, offices, and flats are sympathetic of the architectural revival. Just as in neighbouring Bloomsbury the new wing of the British Museum and the extensions to University College seem to herald the coming of a brighter and nobler district, so in Marylebone the public buildings that have come into being within the last few years are the striking point for evolving order out of chaos.

### HERE AND THERE.

THE playful insinuation that "the English gentlemen of to-morrow" will array themselves in "absurd costumes"—see a letter to the Editors in last week's issue—is not destitute of all probability. At the worst those "gentlemen of to-morrow" could not get so very much beyond the sartorial absurdities of to-day. And this matter of taking heed where-withal we shall be clad is not without an architectural interest of sorts—if there be any virtue in subliminal consciousness, "clothes-consciousness," reflex influence, and such wise sayings. If a saint in silk is twice a saint in lawn, what is the professional and personal equation of an architect in golfing tweeds? Thus attired, could he be fairly expected to think in terms of monumental architecture? A sports pavilion, or at most a garden-suburb villa, exhausts the æsthetic suggestion of such a garb. Since, therefore—let it be granted—there subsists so subtle an affinity between the clothes and the man, and so deep a sympathy or so strong an antipathy between an object and its environment (for example, between an eighteenth-century house and a twentieth-century tenant), let the architect by all means design his own clothes, and his clients' clothes as well (did not Kent design ladies' kirtles to match his interiors?), even as he designs the furniture, the upholstery, the chimney ornaments, and everything on, in, or about a building: or wants to.

How otherwise should we hope for that complete harmony or concinnity of thought, feeling, and means of expression, without which, the purists insist, there can be no perfect architecture? Alas, what woe befalls a "Period" interior when it is entered by a man in spats and a lady cherishing a Pekingese poodle! They kill the scheme; yet not more effectually than Horace Walpole in a wig and silk shorts slew his classicality. These fatal incompatibilities may not cease until the architect turns tailor and cutter, or milliner, like Kent. For, if he would satisfy the extremists—who, indeed, make a merit of being never satisfied—the architect ought not to stop short at design. According to one school of thought (unless we misread Mr. March Phillipps), he ought not to worry about design at all, but let the thing—or the "things," as the ladies used to call them—grow under his hand as he stitches his own garments and cobbles his own shoon, after the illustrious example of Count Leo Tolstoi: the same who asked "What is Art?" and answered that it is "The Brotherhood of Man."

Awl in hand, and leather in good store, the self-

contained and self-educating architect may sip the question of costume, and promote "the dignity of simplicity" by making to himself a durable work-suit, neutral as to Period, of honest leather, à la Carlyle's hero George Fox, the first of the Quakers, who, scorning "steeple-houses," thereby differed mentally and *toto cælo* from the present Reverend Bishop of London, who, as Mr. G. Scott tells us in a refreshing little footnote, is an infinitesimal oasis in a vast desert of philosophy. On page 55 of his "Architecture of Humanism," the most eminent of British architects [at last we found him!] projected a basilica for the Hampton Garden suburb, swept the admirable scheme, declaring he must have a spire point to God. He went much further on in his book of sarcasms that Mr. Scott marks how "the prophets Samuel and Jeremiah" scorned the authority of Vitruvius, and this he says of any bishop, but of the Infallible Pope, or at least of the Grand Panjandrum, of Art and Architecture, John Ruskin, who did, by a jury's assessment, exact the farthing's worth of damage to James McNeill Whistler, and of whom Mr. Scott bids us note "the soundness of the language one is occasionally doomed to hear upon the scaffold, when the builder's foreman says his mind and the helot is sympathetically responsive."

But perhaps I do the horny-handed sons of toil injustice in imputing to their words a lack of simplicity. Their speech, though somewhat Gothic in its large emotional appeal, is nevertheless Vitruvian in its adherence to details that have become classic through repetition. Some would say that while their language remains fustian in its strength and texture, the clothing in these degenerate days is, generally speaking, of less coarse and durable stuff. I have come from a building on which most of the bricklayers are wearing clothes that have seen much better days than Sundays, Bank holidays, beanfeasts. It would be true that nowadays it is only the labourers who wear "purpose-made" working clothes. The skilled workers buy nothing but "Sunday best," ready-made and apparently "offered up" to them on the "trial and error" principle, "exact measurement" being deemed as trivial and unworkmanlike. When it gets shabby they wear it on the job, with hideously incongruous effect, as to the various periods of its elements becoming more particularly as to its absurd unsuitability to the work in hand. Their labourers, in corduroy or fustian, look infinitely more respectable and more "expressive of their purpose," which is probably the chief reason why the bricklayers disdain suitable attire—it is to make them look like labourers. Caste prejudice is confined to the plasterers, with whom it is hereditary.

The other day I saw, in one of the London parks, a gentleman clad after the manner of the ancient Greeks, even down to the sandals, which, however, I suspected of neo-Grec detail in the strap-work. I wondered whether he were an architect meditating Classical designs, and whether Cockerell and E. B. Rieu secretly donned such a costume the better to soothe their sensitive souls with the full afflatus of the Greek spirit. "Greek" Thomson, with all his thoroughness, would certainly have adopted the costume if the idea had occurred to him, but he would not have done it in secret. He would have gone to the job with it; where he would have capped his achievement with a Scots bonnet. Speaking of bonnets reminds me that a fourth lady architect has just entered the lists; and their lovely apparition on the scene so complicates the question of costume that I hasten to drop it without discussing the problem of how a Goth should dress for his part. He should wear, I think, either a gaberдинe or a goatskin. But I lay down no sumptuary law.

NEM.



## BLACKBURN CENTRAL IMPROVEMENT SCHEME.

Some little time ago a competition was held in connection with the improvement of central Blackburn, and the scheme of Messrs. William Stubbs, A.M.I.C.E. (Borough Surveyor), and Walter Stirrup, F.R.I.B.A., was provisionally adopted. Details of the scheme have now been issued in the form of an illustrated brochure.

Blackburn, it must be admitted, is badly in need of improvement. But it possesses two fine public parks, and its situation amid the hills is one which far nobler than might be expected. Its general lay-out, though not altogether good, is far from bad; and the improvements suggested by Messrs. Stubbs and Stirrup should tend to raise it in civic status.

The report which has been drawn up sets forth six schemes for immediate improvements and seven other schemes (embraced by the conditions of the recent competition) which may possibly be dealt with in the future. The suggested improvements are mainly concerned with street widenings and rebuildings, and the construction of new arterial thoroughfares is contemplated.

One of the most important features of the scheme is shown in the lower of the accompanying illustrations. It is proposed to construct a new road through Church Yard and to erect a new line of buildings as indicated in the perspective drawing. The present condition of Church Yard is shown in the smaller view.

Other points at which alterations and improvements are immediately contemplated are: William Street and Lord Street; Market Place; Church Street, Astley Gate, and King Street; the Cross; and Tacketts Street block of buildings.

In the middle of the road stands a monument, and in the middle of the road stands a monument, having been erected, the pedestal, if we mistake not, having been designed by Messrs. Richardson and Gill. It is

an excellent piece of work; but its effect is ruined by its present background of dingy houses and ugly chimney stacks. Messrs. Stubbs and Stirrup propose to blot out these eyesores by the erection of a new block of shop premises, which should provide the statue with a far better architectural setting.

Two other important features of the scheme are the building of a Fish Market on a site between Victoria Street and Lord Street, and a new block of buildings in Tacketts Street, opposite the Market Square. The architecture is all conceived in a style of modern Classic, and a very workmanlike scheme has been evolved. When these improvements are carried out we shall have in Blackburn a modern instance of how the aspect of a whole town may be influenced by the energy and initiative of one or two men.



THE PRESENT CONDITION OF CHURCH YARD.



BLACKBURN CENTRAL IMPROVEMENT SCHEME: SUGGESTED BUILDINGS AND ROAD, CHURCH YARD.

WILLIAM STUBBS, A.M.I.C.E., BOROUGH ENGINEER, AND WALTER STIRRUP, F.R.I.B.A., ARCHITECT.



## MODERN ARCHITECTS:—V. KARL FRIEDRICH SCHINKEL.

SPECIALLY CONTRIBUTED BY A. TRYSTAN EDWARDS, M.A.

*(Continued from p. 82.)*

SCHINKEL was especially fortunate in that he was called upon to erect structures of a very various kind. The Schlossbrücke in Berlin has three low segmental arches, the buttresses between which are surmounted by pedestals carrying statues. Thus there are four of these pedestals each side of the gangway, with the result that the bridge as seen from the river partakes too much of the nature of an obstruction. It would perhaps have been better if monuments had been confined to the extremities as at the Pont Alexandre III. in Paris. His Kasino in the Park of Glienicke at Potsdam, built in 1825, is a departure from the usual one-storeyed type which is popular in Germany. Here there is a solid rectangular block in the centre having two slight projections each side of the front façade, while the effect of breadth is obtained by the addition of two pergolas, each in the form of a double colonnade. The whole is placed upon a stone platform. The site is ideal, as there is a lake in front of the building and a tall bank of trees behind. In this same year Schinkel carried out a scheme for the decoration of the Crown Prince's suite of rooms at the Royal Castle in Berlin. It must be confessed that his domestic work is not of a high standard. He appears to have made no attempt to differentiate between a public building and a dwelling house. The furniture presents an aspect of severe discomfort, and his wall ornament consists of a harsh reduplication of square or circular panels with miniature sculptural monuments in between. Merely considered as a pattern the result is dull, while it takes no cognisance whatsoever of the conditions which must always find expression in the private house of even the most august personage, conditions of comparative laxity that by no means preclude the adoption of a formal manner of building. It is essential even in a room designed to be the home of an individual that a definite æsthetic shape should be the dominating factor in the view; but there must be a place found for an unconditioned aggregate, an informal grouping of objects of common use. On most occasions a simple plan, having doors, windows, and fire-place in relation to one another, a cornice, and sometimes a frieze or dado, supplies the orderly note which is required; and the furniture and pictures can be disposed with considerable freedom without any danger that the result will be mere chaos or confusion. Perhaps it is well to insist upon this, for many critics, looking at Schinkel's interiors, would be disposed to contend that their blemishes were due to the limitations of the Greek style itself. This is not the case, for it is quite within the repertory of such a style to impart an intimately domestic character to both the inside and the outside of a building.

The design for the Pump House, Aachen (illustrated on page 98) is a delightful composition. A circular columniated hall, having a flat conical roof, is balanced by two chambers connected to it by corridors. The Guard House, Dresden (which is also illustrated) is not quite so pleasing, for in this instance the central feature of the façade outweighs its extremities. Other buildings erected by Schinkel are the castle of Charlottenhof at Potsdam, the Straupitz church at Lausitz, the Nicolaikirche at Potsdam (1830), the Bauakademie in Berlin (1831), a solid square fabric decorated with terra-cotta carving, the Palais of the Count Redem in Berlin (1832), in the Florentine manner. At the end of his life he suffered two great disappointments. His great design for a country house at Charlottenburg was never carried out, and that for Orianda Castle for the Czar of Russia suffered a similar fate. The former covered a very large site,

and was conceived as a stone building with numerous colonnades, pediments, flat domes, and long expanse of white wall, a truly magnificent mansion. The type of garden design is adopted here. In the immediate neighbourhood of the house there is no elaborate arrangement of paths or terraces, but a little distance away, completely surrounded by the forest, is an oval garden laid out with shrubs, flower-beds, and usual accessories. Thus the Count would have been able to indulge a desire for complete privacy. The Russian palace was to have been placed upon a hill overlooking the sea; Schinkel regarded this project as his greatest and most mature work. It is not that he seemed to have reverted to the pure Greek style which formed the staple of the exercises of his student days, and beautiful courts and corridors also intended to be a realisation in stone of some of his most successful designs for classical stage scenery. He was also called upon to design a palace for the King of Greece, which would have made the precious relics of antiquity look very different indeed. Fortunately, however, the scheme was never carried out. Schinkel died in 1841, and was active in his last year, although his sight had failed him.

The following paragraphs are a translation of his dicta upon architectural matters, and they show his lofty view of the function of an architect:

"In art the purpose must always be concentrated upon a possible realisation of ideas, but the creative power is dependent for its success upon the ever-renewed exercise of the critical faculty.

"Now, art being worthless unless it be continually renewed (which means that it must have the power of object of furthering the progress of humanity), it is evident that a higher critical attitude can with difficulty be attained, and that art-critics who are not at the same time practical artists must always be devoid of this insight. For it is only the act of creation which is practical and at the same time satisfies the ideal that makes true criticism possible.

"In judging works of art, especially in architecture, few men try to bring them into relation to the culture of their age, or even deign to consider general principles at all. As a rule they are incapable of admiring what they desire for themselves in circumstances or find useful for these. The ordinary commonplace article, brought perhaps to a standard of perfection, constitutes their highest ideal. Anything novel, grand, unusual, seldom attracts a multitude unless it appeals to their sense of comfort, and will always find many opponents. Such a do deference to this low ideal have descended to the plane of art, only to become the slaves of fashion.

"Only those works of art can be of permanent interest which express a noble effort. The artist must not find his task easy; on the other hand he will be capable of the highest achievement if he is animated by a sense of duty. If he recognises the highest ideal the feeling of duty vanishes and he is left with demoniac enjoyment—in fact, he has lost his salvation on earth.

"In a certain sense one can maintain that the artist actually vitalises the material through the form which it impresses on the latter—makes it into a living thing with which one can communicate. What an idea has emanated from the sculpture of a fine statue of Minerva, what a message has such a piece of sculpture spoken to thousands of responsive hearts, what



ts and inspirations has it excited in them besides  
re sensation of pleasure, and this through  
ids of years! In the stone there lives a genius  
xerts a physical and moral influence just so long  
form is recognisable.

historical examples make it clear that in every  
of higher culture the human figure, especially  
uch excels in beauty and proportion, has always  
e chief object of fine art. But during epochs of  
ct culture the human figure has either been  
ed or caricatured; in its place we see stiff,  
-like inanimate forms accompanied by signs of  
olic or imitative kind or by tasteless ornament.  
the decoration consists only of inscriptions, as  
the Moors, who had no representative art, and  
re under the sway of a strictly prescribed canon

which had but scanty influence on the national life, a  
canon which was the expression of effeminacy on one  
side and cruelty on the other, qualities which are  
always found together.

"There is no such thing as beauty apart from the  
objects in which it is displayed.

"To produce a work of art there must be an energetic  
vision, purity of conception, a moral sense, and  
vigorous execution. When the first three are absent  
we have only the trivial and ugly, associated with an  
individual taste and not with the universal, which  
would unite it with the race.

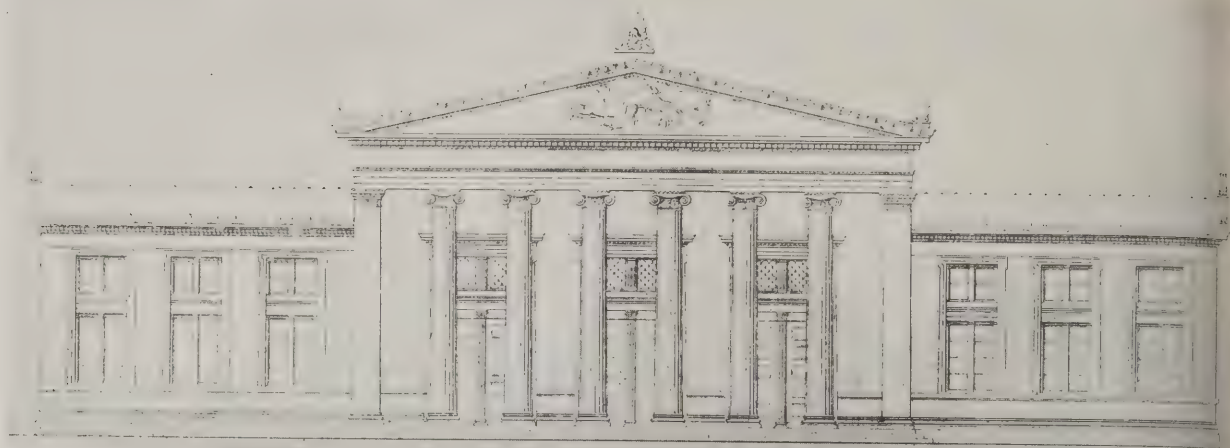
"Only what excites the fancy ought to be included in  
art, for it cannot worthily express a vulgar illusion of  
the senses. This is the explanation why a sketch has  
often a so much greater effect than the completed work



DESIGN FOR A CHURCH ON THE WERDERSCHEN MARKET, BERLIN: PERSPECTIVE VIEW OF INTERIOR.

KARL FRIEDRICH SCHINKEL ARCHITECT.





THE GUARD HOUSE, DRESDEN. KARL FRIEDRICH SCHINKEL, ARCHITECT.

—because in the latter much is included which one could reasonably dispense with, while in the sketch we see only the most necessary, that which excites the fancy.

"In order to train the imagination to apprehend what is beautiful everyone should study the Classic formative arts as well as the Classic poets. On this account the study of such art is indispensable for the higher education of mankind, and for the same reason it is exceedingly detrimental to confine oneself to the art of the Middle Ages or of the East or of modern times; we see the results of a study so limited in work which is coarse, barbaric, and repugnant to any man of fine sensibility.

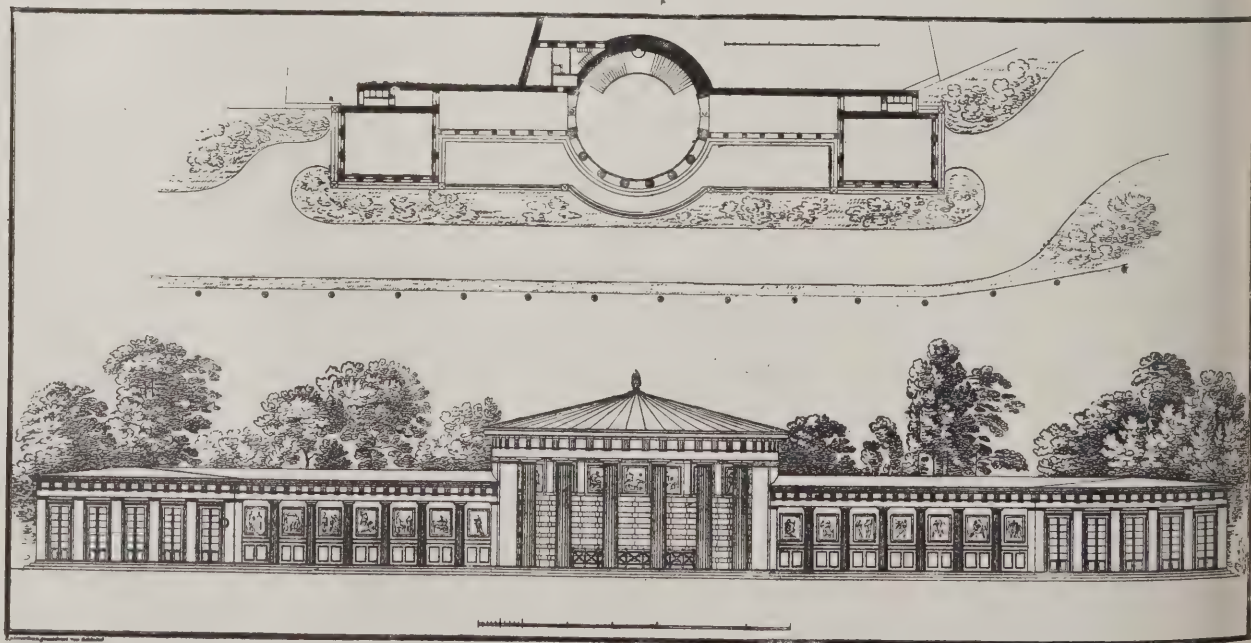
"Mankind is called upon to carry Nature to a higher stage, to develop it further, following her laws consciously but without self-will. Architecture consists in the continuation of Nature in her constructive activity.

"In modern times there are entire nations standing at the apex of the so-called higher culture, among which nevertheless no ideal of art shines forth. Their activities lie in the perfection of the conveniences of life in endless small details, and they demand in respect of art only a vulgar illusion, a certain naturalness, mostly of an accidental kind, and a nicety of technique. Here art serves only as a pastime, becomes a mimicry,

and passes into immorality of a kind which it is high impossible to dispel. Or else they are content to confound history with art, and in representing a story in a pictorial manner they imagine themselves to be animated by the true creative spirit. And of late the idea of Barbarism has taken a new aspect; it is no longer mere roughness, absence of morality, or crudeness that are comprehended in the term, but a superficial external culture which has nevertheless no real basis or foundation; a taste which follows the conventional manner of the age but which is not distinguished by a trace of genius; on the contrary, a banishment of every original unsophisticated sentiment, a dilettante adaptation of all social laws to egotistic ends.

"In producing a work of art it is all-important to adopt a certain attitude towards Nature. There must take place a complete surrender to Nature, but such a surrender will lead the artist to ignore and eliminate much that is fortuitous or that is alien to a particular purpose or conception. It is in this that the definite character of a work of art really consists. The surrender upon every detail as chance may decide, and without conscious choice and rejection, only leads to a result which is totally lacking in character.

"The higher beauty never arouses such a sensuousness as will be in opposition to human dignity, but rather it will evince a sensuousness of a higher kind, penetrat-



DESIGN FOR PUMP HOUSE, AACHEN. KARL FRIEDRICH SCHINKEL, ARCHITECT.



the feeling that the divine can be associated with earthly form, and that it can and must be found therein. Those religious precepts are extremely judicious which cast a reproach on Fine Art as being something iniquitous; whereas really they cut off from mankind the only means by which it can escape from equality and recognise the divine in the earthly form, but after all cannot have come out of hell, but is the creation of God.

Love towards Nature acts like that fine attention which enters into human relations where respect and equality are equally balanced.

The function of a work of art for posterity is to present in a real manner what one thought and felt, and it can do this better than any written work.

If anyone, in front of a work of format ve art, wishes gradually to enter into its spirit by means of grasping the ideas or associations which may accidentally be connected with it, he will surely prove that he is wanting in true feeling for art, and that he can only occupy himself with the accessories, the unessential of art. It is because of this that most critics find a little that is profitable and so much that is unsatisfying.

Whoever wants to criticise a work of art, or a series of such, with true profit for the world, ought to solve the same problems in turn and show how the work ought to be done. Men of the most commonplace mind, nay, the barbarians most easily of all, can discover flaws, and it is the true business of such as these.

The architect, according to his own idea of his mission, aims at ennobling all human relations, and he embraces the whole of the Fine Arts in his sphere of action. The plastic art, painting, and the art of dealing with space relations under the conditions of human life must with him coalesce into one single art.

Whatever place architecture may hold among the other arts, it has at least this advantage over them, that it unites with the representation of the ideal a real content, while in the rest of the arts only pure representation takes place. It has also the advantage that the ideal of architecture is at bottom a creation of human spirit itself, while in the case of the other arts the ideal can be constructed out of objects already present outside the sphere of the spirit."

Schinkel did much to popularise the "grand manner" in his country, and it is likely that in the coming years his work will continue its beneficent influence upon German architecture. He had the ideal of cosmopolitan style, and consequently his example would do something to check the modern eccentricities which are chiefly due to an intense desire of artists to be "national" above all else, and to refuse to adopt elements of composition that have had their origin among other nations and at other periods.

A correspondent kindly writes to point out that the building illustrated at the foot of page 46, July 15, is not, as stated, the Palace of Prince Albert of Prussia, Wilhelmstrasse, but the Kronprinzen Palace, Unter den Linden.

The preceding articles in this series were published as follows: Sir John Soane, April 8, 15, and 22; Alexander ("Greek") Thomson, May 13, 20; Sir Albert Smirke, May 27 and June 3; Leo von Klenze, June 17, 24, and July 8; Karl Friedrich Schinkel, July 15 and 29.

The other great "Modern Architects" who will be dealt with in this series are Vandoyer, Duban, Grousse, Ginain, and Duc. Their most important buildings will be reviewed, and an account will be given of their lives, though in no anecdotal spirit, the object being to discover what message these men have for the present age.

## CORRESPONDENCE.

*The Editors disclaim all responsibility for the statements made or opinions expressed by correspondents, who are asked to be brief, and to write on one side only of the paper. Every communication must bear the name and address of the sender.*

### *Architectural Illustrations.*

To the Editors of THE ARCHITECTS' AND BUILDERS' JOURNAL.

SIRS,—While the subjects of the plates supplied with your paper are recognised to be excellent, some of us feel that in many cases the effects of drawings are spoiled in reproduction. I would like, therefore, to suggest that some better means of reproduction be used instead of the ordinary half-tone. The American "Architectural Review" seems to me to be the thing, and it seems a pity that a journal like yours, which is well on its way to being recognised as the best British architectural periodical, should not make a step in this direction.

Subscribers, I think, would be quite willing to pay a penny or twopence more per copy for really fine reproductions.

Perhaps it might be advisable to publish this letter, and obtain the views of some other members of the profession.

Liverpool.

W. NASEBY ADAMS.

[We adopt our correspondent's suggestion of printing his letter with the object of eliciting the opinions of other readers on the points raised. We do not think that there is in existence any really practicable means of reproduction that is better than half-tone. The illustrations in the American periodical mentioned are half-tones, but they are printed in duplex ink, a system adopted with equally excellent results in the English "Architectural Review." There are, of course, slower and more costly processes which show rather more refinement than half-tone; but the slight advantages they offer are not commensurate with their largely increased cost. In justice to the half-tone process, it should be added that while it does not in every instance do full justice to the originals, it frequently improves upon them, the result being largely dependent on the character and quality of the original. —EDS. "A. and B. J."]

### *"Impersonal Art."*

To the Editors of THE ARCHITECTS' AND BUILDERS' JOURNAL.

SIRS,—Mr. Adamson's letter on the above in your issue of July 22 made me delve among my "back numbers" till I found the one of June 10 and A. T. E.'s article. A. T. E. and Mr. Adamson have evidently studied the subject of "personality" very carefully, and I would hesitate to join issue with either of them as to what it is, but they use many words, such as "personal," "ex cathedra," "personal Deity," "tradition," "Beaux Arts," and "gratuitous assumption," which obscure the real differences of their positions. For such words have so many personal meanings nowadays that they mean nothing. And as a question of some importance is concerned, I venture to write this to point out what are the positions held by A. T. E. and Mr. Adamson so that your readers may more clearly judge between them.

In effect A. T. E.'s theory seems to be that "impersonal" art, in which the artist's individuality is of set purpose suppressed—e.g., the works of Palladio and Sir Gilbert Scott (identical in spirit)—is good because it pays best. Its exponent must think less of what he wants than of what his clients think they want, i.e., the "latest fashion." If such a man is neither before nor behind his time, and can express popular ideals, he will be financially a success, especially if his work pleases his *confrères* enough to make them advertise it by imitation. That kind of success is less easily obtainable than Mr. Adamson



perhaps supposes; it calls for ability of no mean kind. But to see his name swamped by that of a "period" or a "style" is the doom of the successful one, and we are not all so content with lack of personal fame as A. T. E. would have us to be.

Mr. Adamson, on the other hand, would fling his drawing board in the face of the Public. His contention is that "personal" art is good because it also pays—but in pleasure, not in cash—and because an artist's opinion of what is good will be more valuable than the opinion of an impersonal three-quarter educated populace. Let the artist do what he believes to be right and let the public go hang! But, says A. T. E. (p. 402), "Society is slighted and takes revenge by ignoring the artist." Too true. The architectural artist cannot create without money or clients. So Mr. Adamson's individualist must needs starve and leave no works to make *his* name immortal. Haply he may get a job as assistant to his impersonal rival and help to make the latter's products even more impersonal!

"Bow with me," says A. T. E., "to impersonal classicism, that benevolent tyrant, and become an R.A. and an *arbiter elegantiarum*!" "Express yourself," says Mr. Adamson, "for only thus can you be happy if you have a self to express!" The former offers us power at the cost of liberty, the latter liberty at the cost of power.

Personally, like the deacon, "I can resist anything except temptation," but in the present case, like Paris, I would prefer a third alternative. Can we not have individuality without unpleasantness and up-to-date-ness without slavery to fashion? There *is* a way which leads in the right direction, and that is the path of true Gothic principles.

This—as Professor Lethaby has shown—does not involve imitation of mediæval details, as in the so-called "Gothic" revival. But that is too large a subject to discuss now, and does not affect the question of whether comfortable slavery or uncomfortable freedom—for so may be translated "impersonal art" and "personal art"—would be best for the future of British architecture.

Glasgow.

H. L. H.

#### To the Editors of THE ARCHITECTS' AND BUILDERS' JOURNAL.

SIRS,—Ready as I am "to build a bridge of silver for a flying foe," I regret I cannot compliment A. T. E. on the logical qualities of his reply to my letter on "Impersonal Art" in your issue of July 22.

Referring to my remarks on Impersonal Art degenerating into soulless copyism, "Impersonal Art," says A. T. E., "never degenerates into copyism, for it is the product of those artists who are capable of apprehending æsthetic principles." This statement, to use his own words, "falls to the ground," and, may I add, falls with a thud, since its author has made no attempt to prove that artists who are capable of apprehending æsthetic principles are incapable of copyism, which proof is essential to the truth of his assertion.

He also, in the manner of a practised debater, calls for a definition of terms, for lack of which he easily assures us that my argument is devoid of force. Any point his demand might have had it loses, for in almost the next sentence he is found himself making use in the same sense of the very words whose meaning he claims requires definition. Again, A. T. E. declares, "It appears that Mr. Adamson believes that art is not the expression of any principles at all." I might—to follow his own methods—assure him that since he had not defined "Art" his remarks are devoid of force; instead let me hasten to say he is right. Art is certainly not the expression of principles, though good art is assuredly based upon principles. The principles,

however, are not by any means the whole of the matter, as his statement might lead one to believe. Indeed, a work of art is most surely Art by virtue of the *something else* contributed not by the principles but by the artist himself.

It now appears that A. T. E.'s most serious error is in the fallacious assumption that since the general principles which underlie good art are impersonal, a statement which no one denies—therefore the art which is produced by adherence to these principles is also impersonal—a conclusion which will not for a moment bear serious scrutiny. If it would, then there would be no need for the artist as we understand the term; Art would have become Science, and by strict adherence to rules and principles the same result could be produced by anyone, just as any number of people by applying the principles and rules of mechanics correctly to a problem can arrive at the same result separately at the same result or solution.

If this were true of Architectural or Artistic work, then the band of co-operative designers would infallibly achieve the same complete success by the correct application of these principles as the individual architect could. Yet A. T. E. in his article condemns the co-operative designers. Surely in this, from his own point of view, he was illogical.

But, as I have suggested above, obviously something more is required for the production of art than adherence to rules and principles. Surely Imagination is not to be forgotten. The imaginative power of artistic conception is its first essential claim to greatness. It is to a large extent by virtue of different qualities of imagination that the work of one artist separates itself from that of another (though both may be in accord with the abstract principles of A. T. E.) and achieves distinction, and the artistic imagination of an artist is undoubtedly one of the most important attributes of his personality.

In conclusion "the absurd antinomy of personality and tradition" may vanish "as soon as art is recognised to be impersonal." I do not quarrel with that statement, I merely suggest that A. T. E. has altogether failed to maintain the contention that impersonal art *is* impersonal.

J. R. ADAMSON.

#### THE PLATES.

##### New Picture House, Edinburgh.

THE theatre, built for the Provincial Cinematograph Theatres, Ltd., was opened in October, 1913, having been completed in a little over six months. The entrance foyer was originally a room occupied by Messrs. Lipton, and the theatre proper at the rear formed part of the Royal Hotel.

The entrance front is carried out in Pentelicon marble, with bronze enrichments, the two large columns being of Swedish green marble. The vestibule is lined with alabaster generally, and has a dado of Sienna, with black bands. The ceiling is a gilt metal vault, and the enrichments are of bronze, and the walls are panelled in oak throughout, with Scagliola columns.

At the end of the foyer is a small oval tea-room decorated in the period of Louis Seize. Two large cafés are provided—one in the basement, which is panelled, and the other on the first floor, in the Art Deco style.

The auditorium is modelled on the lines of a Roman basilica, with side galleries supported on Scagliola columns.

The walls generally are covered with tapestry framed in dark oak. Under the galleries are bronze inlet grilles of the usual leaf pattern. Accommodation is provided in the theatre for about 1,000 people.

The contractors were as follows: Messrs. Millar and Son, Edinburgh, general contractors; Messrs. Young and Co., London, steelwork; Messrs. Winton,



and Co., London, marble; Messrs. Bellman, Ivey, Carter, London, scagliola; Messrs. Fenning and London, mosaic; Messrs. Ogilvie and Co., Aberdeen and Messrs. J. Taylor and Co., Edinburgh, oak; Messrs. Bromsgrove Guild, Bromsgrove, and Messrs. Gaze and Co., fibrous plaster theatre, foyer, and tea-room; Messrs. Morrison and Son, plumber; Messrs. W. Macfarlane and Co., Glasgow, grilles; Messrs. Albany Forge, London, railings; Messrs. H. and Co., Birmingham, bronze doors; Messrs. and Webb, Wolverhampton, door furniture.

#### Gate Lodge, Overtoun Park, Glasgow.

This park is situated on the rising ground to the north of Rutherglen, and was gifted to the Burgh of Rutherglen by the late Lord Overtoun. It extends to some 100 acres, part being set aside as a playground for young children. The building shown contains the warden's house and also a retiring-room and lavatory

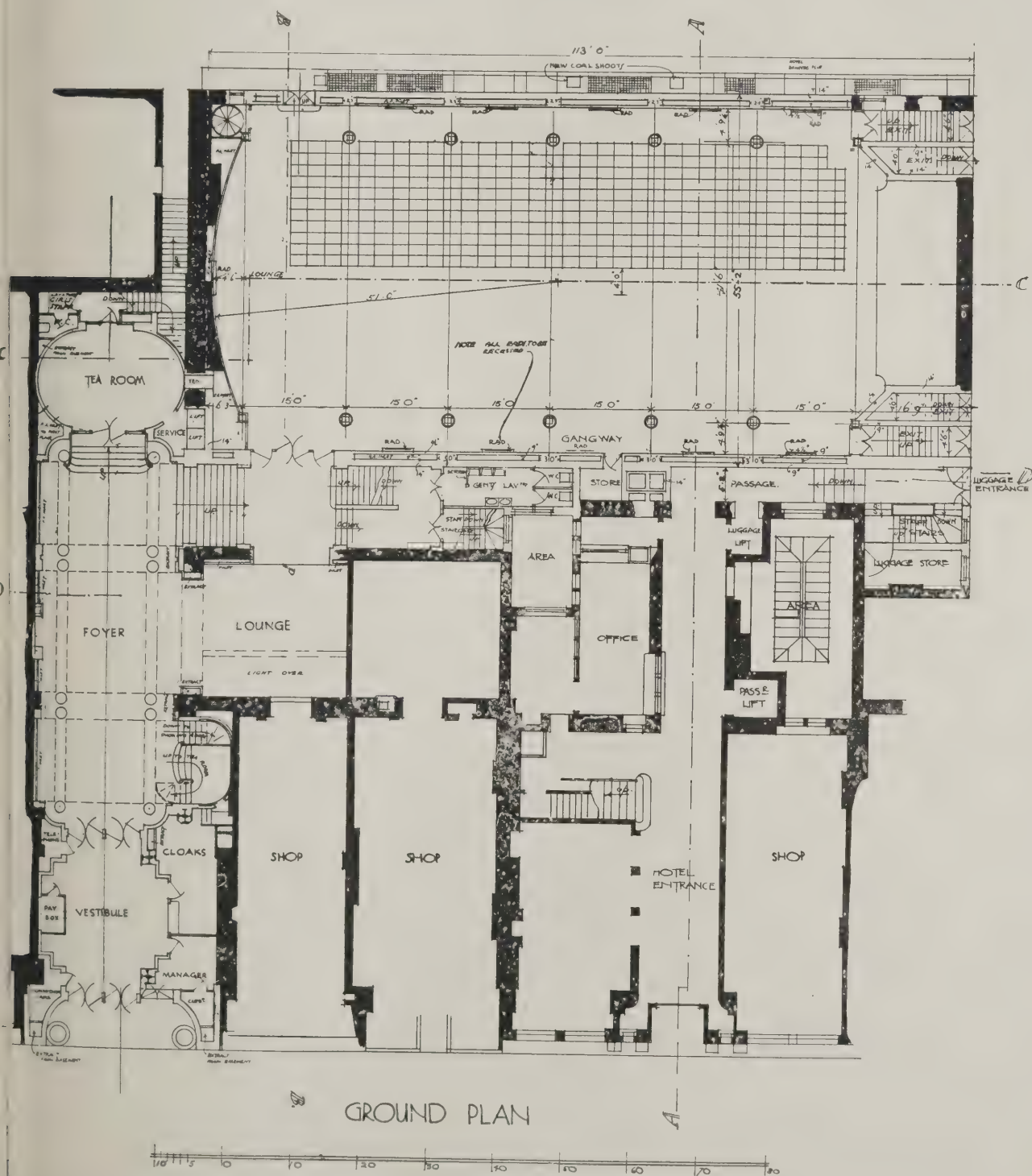
for ladies. It is built of white freestone, with a red tile roof. Messrs. Watson and Salmond, F.F.R.I.B.A., were the architects.

#### Kent House, Hammersmith.

The composition of this front is particularly interesting, the octagonal bays on either side forming very attractive features. The materials are stock bricks with plaster dressings. The details of the plasterwork, and the joinery, such as the blind boxes and surrounds to the windows, as well as the wrought-ironwork, will well repay a little careful study.

#### Design for a Monumental Fireplace.

The design of a Monumental Fireplace formed subject XIII.a in the R.I.B.A. Testimonies of Study. Several approved designs in this series have already been published, and a further example is given in this issue. It is the work of Mr. G. Davidson, of Liverpool School of Architecture.



NEW PICTURE HOUSE, PRINCES STREET, EDINBURGH: GROUND PLAN. ATKINSON AND ALEXANDER, ARCHITECTS.



## SOME "RIGHTS OF LIGHT" FALLACIES.

SPECIALLY CONTRIBUTED BY PERCY J. WALDRAM, F.S.I.

**D**AYLIGHT and its access to rooms is constantly the subject of expert evidence in the Courts, and not infrequently that evidence is supplemented by statements relating to the loss of direct sunlight. But one may sometimes be permitted to doubt whether every expert witness in an ancient-light case has fully qualified himself to advise the Court on all the scientific points to which he deposes.

The bulk of the expert evidence given in light and air cases consists of statements based upon the witnesses' observations at one or two short visits to the premises in question, aided by a study of plans and sections. Possibly, due allowance is always made for visual idiosyncrasies which are not generally recognised, and possibly the weather and the altitude of the sun is carefully noted and allowed for. If so, then some expert witnesses are so silent with regard to these points that they run no little risk of conveying the impression of either being ignorant of them or of failing to attribute to them any material importance.

A most deeply rooted and fundamental fallacy finds expression in the familiar phrase, "I judge by what I see," or, "A man must believe his own eyes." As a truism, this can, of course, only hold good in so far as it is possible to know what it is that one sees and to appreciate what it is that our eyes are *really* telling us.

These limitations alone have quite a considerable range. There are many optical delusions, some familiar, some scarcely suspected, and, probably, many not yet discovered. Even in cases where no known optical delusion exists, very often that which we judge of and believe is not that which we are looking at by any means, but something quite different. For instance, when we view an object we are really receiving merely a small amount of light reflected from it in one particular direction, and the extent to which we are affected thereby depends upon the contrasts afforded by the immediate background and the general surroundings. If we are depending upon our unaided eyes, we judge by this sub-conscious contrast of reflected light the total light falling upon the object in order to say whether it is brilliantly, moderately, or poorly lit.

Not only is the impression thus conveyed often trusted implicitly, but expert witnesses will sometimes ask the Court to regard such an isolated experience as reliable evidence applicable to all times and to all seasons. Quite recently the writer heard an architect state in Court that a room was well lit in spite of a high wall 15 ft. away, because on a sunny July morning he had read with ease the titles on medicine bottles standing on a table. What we see reflected from an article in one direction is little or no criterion of what it looks like in other planes. If the surface is smooth and polished we see it by light directly reflected at an angle equal to the angle of incidence; or, if the surface is "matt"—*i.e.*, containing the innumerable facets conducive to diffuse reflection—we see it partly by light received at various angles, and mainly by light received at an angle equal to the angle of view. A glazed printed page lying horizontally on a table and illuminated mainly by low angle daylight entering under a low window head might appear to an observer standing up

and looking down into it to be very poorly illuminated. Yet it might be almost dazzling to another person sitting down and a short distance away; whilst a third person sitting closer to it and tipping the book naturally to his ordinary position for reading might easily find the light pleasantly ample.

Quite irrespective of the question of reflection, there is also the highly important factor of contrast. What we see by means of reflected light we can only appreciate by means of contrast. Printed characters on white paper are obviously more visible than pencil characters on grey paper would be. A glass tumbler inside an equally illuminated Ulbrecht globe or its equivalent is absolutely invisible, because there are no shadows or contrasts of illumination. Similarly a sheet of thin celluloid entirely disappears in a white china bowl of water.

But whilst we readily allow for the effect of local background contrasts, the contrasts of general surroundings are not always properly discounted when estimating the daylight of interiors. The light on a writing-table of a sombre-walled library might be most attractively ample, whereas precisely the same daylight illumination in an adjoining drawing-room with light walls and light floor and furniture might be considered totally insufficient. In the first case, the iris diaphragm of the eye has opened widely under the action of the low general illumination; in the second it has unconsciously closed on appreciating the bright general light.

A class of schoolchildren will read and write with ease in classrooms receiving perhaps three foot-candles on the middle desks and one foot-candle at the back row. Take the same class out into the playground and set them to work under a playshed with an open side facing the sky, where perhaps twenty foot-candles of daylight is reflected from their books, and they will one and all complain of the poor light. Turn them round to face away from the open sky and then, except for the shadows of their own heads, they will probably find the light quite satisfactory after a few minutes.

The opening and closing of the pupil aperture of the eye by means of its wonderful iris diaphragm is probably instantaneous with most people, but, in addition to that, the chemical composition of the fluids of the retina also changes under different intensities of light, and this change is somewhat slow. It renders the eye more or less sensitive as required, and supplements the effect of the iris shutter. Every sensible person entering a darker room from a well-lighted one waits a short time in the interests of his own shins and the furniture before moving about, in order that his eyes "may grow accustomed to the gloom." In other words, he knows by experience that he must give time for the retinal fluids to change their composition and increase the sensitiveness of his vision to low illuminations.

This may take four to five minutes with many people, but how many architects when viewing premises allow their unreliable eyes even half this necessary period of adaptation.

The difference in illumination under artificial light between a room well lit and

one very poorly lit is minute as compared with the huge difference between any well lit by daylight with vertical windows and the illumination out of doors. It brings us to another very curious anomaly. Under artificial light, as in poor or obscured daylight, we can detect a small difference in illumination, and artificial illuminations as high as ten or twenty foot-candles are not only almost unacceptably bright, but the normal eye cannot adapt itself to receive them. Yet under daylight we can read quite happily under 100 foot-candles, and if, owing to passing clouds, it runs up to 500 or 1,000 in a few seconds and then drops to 50 or 20, we scarcely notice it. It is daylight.

A small fraction of such variations occurring under artificial light would drive a person nearly crazy. Thinking only of our sensations under artificial light, it is not natural to shudder at the very idea of a loss of 10 per cent. of visible sky of a low angle and to consider it as an irreparable injury for which a mandatory injunction and heavy costs would be but a light punishment.

Whether such a loss be injurious, negligible, or even appreciable depends upon circumstances. As a matter of fact, there are very many well-lit offices facing daylight wells in the central parts of the building from which sky can be seen only in positions close to the window. It is uncommonly supposed that the height of the building front facing such windows is the dominating factor; *viz.* if it be sufficient to leave sufficient sky visible from the windows, the rooms will be well lit; and if be too high then the rooms are darkened. A little consideration and a few experiments with a model will make it abundantly clear that, at heights well below those commonly adopted for office light wells for important buildings in large towns, the height of the opposite building has very little effect, and that the really essential factors are:

- (1) The depth of the rooms affected in relation to:—
- (2) The height of the top of the glass of the sky-scraper.
- (3) The colour of the obstructing front of the sky-scraper.
- (4) The height not of the obstructing building but of the *obstructed* building.

A one-storey building facing a sky-scraper will depend almost entirely on light reflected from the sky-scraper front, and whether that be 20 or 200 storeys makes but little difference. But another storey added on top of the low building would affect its ground floor very materially indeed by shutting off light from the sky-scraper front.

About an hour after sunrise and an hour before sunset an ordinary room lighted with adequate windows with a free open aspect would enjoy what would normally be called "full daylight," and its occupants would not notice much difference at different periods between these times; nor would there be appreciable much difference in the illumination from the front to the back of the room provided the sun did not shine directly on the windows or were not reflected into the room. But any table of photographic exposures should show at a glance that the light varies enormously on any day, and an attempt to photograph different parts of the room simultaneously discloses great variations in the light, as indicated



length of exposure required with the stop.

Rate photometric measurements of light show similarly that in a room most people would regard as evenly lit by daylight, there may be an drop of as much as 90 per cent. from the back; and that the apparently unchanging light received from an overcast sky throughout the day is really varied by a very steeply rising curve from sunrise to noon, which descends as from noon to sunset.

Even more striking example of the absurd inability of the unaided and untrained eye to estimate great differences of light can be obtained by viewing a sheet of ordinary printed paper, first on a sheet of the centre of an ordinary well-lit room about midday, and then in an open doorway out of doors under an even light sky with no direct or directly reflected light at either situation. The eye can fairly estimate the illumination to be 10 per cent. or 15 per cent. greater in the room, probably because one thinks of light to be at least that difference. A camera, with its unchanging aperture, has no such delusions. If outdoors light of a second would suffice, then indoors at least ten or fifteen minutes would be required to give the same result with the stop. Exact photometric measurement of the illumination on the paper in the two positions would give a similar result, say 1,500 to 1 instead of 11 to 10.

Stop photographs of interiors also give an idea of the real gradations of light in a room, showing as they do an unnatural darkness at the middle of rooms in a print in which the nearer the window are fully or overexposed.

Our observation of the sky and the position of the sun is by no means free from popular error. We associate blue sky with sunlight and clouds with darkness. Outside the direct rays of the sun, all light is lighter than those which appear to be dark grey, give us very much more than does clear blue sky. The camera does not correct this fallacy quite fully, because the photographic plate is particularly sensitive to the ultra-violet from blue sky.

For some reason or other, most people do not apt seriously to overestimate the angle of the path of the sun. At noon in winter the sun appears to be about 30 to 35 deg. above the horizon, whereas actually it is only about 15 deg.; at noon in midsummer it is quite difficult to see, especially when viewed from a street, and to appreciate that it is really about 30 deg. from the zenith, even though we may be scientifically convinced of the fact and have just measured the angle. A plaintiff in an ancient lights dispute, by recalling the sunlight which he previously enjoyed over a building of moderate height, will generally give expression to a greatly exaggerated recollection of it, and quite honestly. Owing to the peculiarity of the untrained eye to overestimate vertical angles, it is not always possible to convince a judge and jury or even a town council that such evidence is reliable.

A short article does not attempt to exhaustively all the interesting limitations of the human eye as a measuring instrument of daylight. Neither does it attempt to show that these natural prejudices, which sensibly affect the reliability of our judgment in ancient light cases, should be taken into account in any spirit of superior contempt by a scientific expert who is able, pos-

sibly, to apply more exact standards of measurement.

On the contrary, it is intended to show that the close study of such prejudices is most essential, not only to enable the truth to be distilled from the honestly contradictory evidence of lay witnesses, but more especially in order to qualify the expert properly to apply his scientific facts for the assistance of the Courts.

The accepted legal definition of obstruction to light is "a substantial diminution of the plaintiff's use and enjoyment of his premises." In every case the first question of fact should be, "Is it use or is it enjoyment which is affected, or both?" The two must be judged by quite different standards.

In business premises, offices, and workshops, where light is used rather than enjoyed, light reflected as from a glazed brick light-well in a City office building may be as valuable as direct sky. But in residential premises, where the enjoyment of light more directly affects rental value, we require not merely light but a sense of light. It may be possible, for instance, actually to increase the total light in rooms by altering an old dark wall opposite the windows to a higher wall lighter in colour with less direct sky over it, and yet by doing so to materially decrease the rental value of the rooms in the opinion of reasonable lessees who are subject to no prejudices due to previous enjoyment of the lost sky.

Actual light in a dwelling-house, especially in one of a good or high class, is never credited with anything like its full photometric value when it is obtained from window aspects which insistently suggest bad lighting and worse ventilation. In the cases of offices, workshops and other buildings where the main consideration is the number of hours of artificial light required during the year for a given purpose, such prejudices apply only to a very limited extent, if at all. Business men and manufacturers will, as prospective lessees, be more inclined to judge the light in rooms by viewing them at or near sunset, and as sitting tenants they will generally accept a quantity of light which proves to be amply sufficient for their reasonable needs, whether it be reflected, diffused, or direct.

In such cases exact photometric comparisons of the ratio of the outside light entering the rooms as compared with the ratio enjoyed by similar premises is a correct and proper criterion to apply, and is one which is of real use to the Courts. It can easily be ascertained by methods which are quite simple.\*

Many thousands of such tests have been made and recorded by factory inspectors,† and they are generally accepted both in this country and abroad as the correct criterion for school lighting.‡

But, as far as the writer is aware, no similar standards have been formulated which define in exact terms the minimum standard of comfortable enjoyment for residential rooms, and with regard to such enjoyment the Courts prefer to be guided by the common-sense views of surveyors who are qualified to express an opinion of the needs of reasonably minded residents in the locality in question.

\* Vide "The Photometric Measurement of Illumination," "Illuminating Engineer," 1908, Vol. I., pp. 741 and 811, and Vol. II., 1909, p. 469.

† Vide Parliamentary Reports of H.M. Chief Inspector of Factories 1909, et seq. (Wyman and Sons, Ltd., Fetter Lane, E.C.)

‡ Vide "Report on School Lighting," Illuminating Engineering Society, 32, Victoria Street, S.W.

## NEWS ITEMS.

### *A Big New Cinema.*

Last week a new cinema palace was opened on the Grange Estate, Kilburn High Road. The hall, which has been erected from the designs of Mr. E. A. Stone, F.S.I., is 170 ft. long, 90 ft. wide, and 45 ft. high. It provides accommodation for 3,000 persons and contains a large organ.

### *London University Prize Awards.*

In connection with London University College School of Architecture, the following awards have been made: Carpenters' Company Travelling Studentship: H. Norman Jepson. Evening Design Class Prizes: F. E. Crutchley and R. A. Walter. Additional Prize for Sketching and Measuring: R. A. Walter.

### *Monument to Mr. E. Whymper.*

At a gathering of representative international Alpine climbers held recently at the Monserosa Hotel, Zermatt, it was decided to commemorate the 50th anniversary of the first ascent of the Matterhorn by the erection of a monument to Mr. E. Whymper, Lord Francis Douglas, Mr. Hadow, and the Rev. Charles Hudson, and the guides Michel Croz and the two Taugwalders. The cost is estimated at about £800, and will be covered by subscriptions.

### *An Imperial Memorial for Bombay.*

When the King and Queen landed in India in December, 1911, a special building was erected for their reception on the Apollo Bunder, Bombay, the historic landing-place in India, from the designs of Mr. G. W. Wittet, consulting architect to the Government of Bombay. On the King's suggestion it has been decided to erect a lasting memorial of the Imperial visit to India. The scheme provides a commanding site for the new building, which has been designed on broad monumental lines. The plan is an arrangement of three halls, 143 ft. long over all, with a maximum depth of 64 ft. The central hall, which is 85 ft. in height from ground to parapet, contains the great gateway, 30 ft. in width, and the side halls form flanking pavilions for reception purposes. The design is Indian in character, based on the work carried out in the west of India during the fourteenth and fifteenth centuries.

### *Old English Furniture and Plasterwork at the Victoria and Albert Museum.*

An opportunity is now afforded to students of old English furniture of observing one of the best-known specimens extant of the Pre-Reformation period. Mr. F. Harris Mitchell, of Chard, has lent to the Victoria and Albert Museum the famous Gothic bench, for many years in the Green Dragon Inn at Combe St. Nicholas, Somerset; and this is now exhibited in the Department of Woodwork in Room 21, near the Exhibition Road entrance to the Museum.

In Room 52 is also displayed a recent purchase of considerable interest, a quantity of plasterwork, decorated in *grisaille*, which was acquired for the Museum from an old house at Stodmarsh, Kent. These panels fall into two groups, one representing the story of Diana and Acteon, flanked with full-length drawings of a lady and of her maid in costume of the middle of the sixteenth century, and the other group consisting of emblems of four of the planets—Jupiter, Venus, Mercury, and the Moon, each with one of the signs of the Zodiac and a landscape emblematic of one of the months.



## ENQUIRIES ANSWERED.

*Under this heading, difficulties met with in professional or business practice are dealt with by a staff of experts. Only really practical questions are desired.*

*Replies will be published as promptly as possible, and in the ordinary course no charge is made to the querist.*

*Urgent questions, however, will be answered by post in advance of publication, provided the querist encloses a postal order or stamps to the value of 1s. This sum is not to be regarded as payment for the reply, but merely as an expedition fee; and, while taking every care to ensure dispatch and accuracy, the Editors disclaim all responsibility for any delay or inaccuracy that may unavoidably occur.*

*In all cases the Editors reserve their right to publish the question and answer or not, as they think fit, and to reject any question that is deemed to be unsuitable.*

*Querists are asked to state their questions as briefly as possible, and to write on one side only of the paper.*

### Bleaching Old Oak Panelling.

X. (Cheshire) writes: "As a subscriber of many years' standing to THE ARCHITECTS' AND BUILDERS' JOURNAL and 'Specification,' I should esteem it a favour if you could kindly give me any information regarding the following matter: I am at present carrying out a job for a client in which new oak panelling is being fixed, some of it alongside old oak panelling of a dark-brown shade. My client is so pleased with the new shade—grey—that he wishes the old to be toned down as near as possible to the shade of the new. We have tried various washes, viz., caustic soda, ammonia, black ash, etc., on sample pieces, but without any great success. I should be very glad if you could inform me of anything which will have the desired effect."

—Querist might try (on a further sample piece) the effect of coating the surface with a thin plaster of hot lime putty, and, after leaving for a few days, stripping and washing thoroughly clear. G.

### Preserving Timber.

J. K. C. (Hereford) writes: "What are the chief means that can be adopted for the preservation of timber exposed to various destructive agencies? I do not want to know about proprietary preservatives."

—A treatise on the subject might be written, and the answers to enquiries must be kept short, but the following brief summary may be useful. Creosoting: The wood is steamed in iron cylinders, and, the steam having been expelled and a partial vacuum produced, the wood is impregnated with creosote oil. Burnettising: Similar in method to creosoting, but the solution used is chloride of zinc. It is not so effectual as creosoting, the virtue of the solution being in time diluted and destroyed by any water reaching it. Unlike creosoting, therefore, Burnettising is unsuitable for piling. Rutgen's process is a compromise between creosoting and Burnettising—that is to say, both creosote and zinc chloride are used in it. Kyanising employs corrosive sublimate for the impregnation. Coal tar is a good preservative, but its appearance is objectionable. A preservative preparation made as follows is free from this objection: Sulphur, 500 parts; resin, 375 parts;

fish oil, 75 parts. When these are completely melted together, a small quantity of red or yellow ochre or iron oxide ground in linseed oil may be added for colouring, and the mixture is laid on in its boiling state. Two coats are applied, the first being allowed to get thoroughly dry before the second is put on. The principal proprietary preparations are described on p. 158 of the current issue of "Specification."

### Tendering for Quantities.

C. E. K. (Jarrow) writes: "I frequently see advertisements inviting tenders for quantities, but would it not be a breach of professional etiquette to respond?"

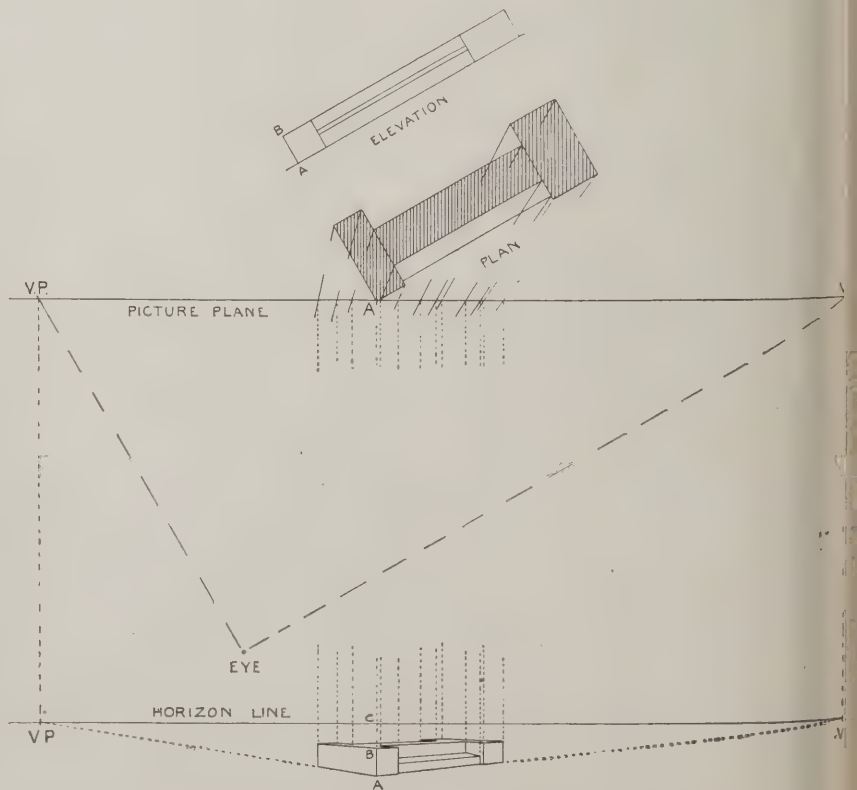
—The practice of tendering for quantities is wholly objectionable, and was made the subject—or, rather, one of the subjects—of a special memorandum addressed, in June, 1910, by the Council of the Surveyors' Institution to local authorities and public bodies, who are warned that "when the practice of inviting surveyors to tender for employment is resorted to, irresponsible persons with little training, knowledge, or experience may quote fees at which they would be ready to supply quantities, but which would be an altogether inadequate remuneration for the amount of detailed work involved in their accurate preparation, and for the responsibility incurred. . . . While recognising that public bodies invite tenders from surveyors with the best intention—viz., that of guarding the public purse—the Council point out that any system by which the financial return for professional work is reduced below the point at which it becomes remunerative to properly trained and qualified men must tend to lower the professional standard, and so, in the long run, prejudice the public, who unknowingly have to depend so largely on the ability and integrity of the surveyor. The loss occasioned to the public by bad or inaccurate quantities far more than counterbalances the small saving in fees resulting from the system of tender." The course recommended by the Council of the Institu-

tion is that public bodies requiring the services of a surveyor should first settle with competent advice the remuneration to be paid, and, if circumstances render necessary, the time to be allowed, and select a person or firm from a list of able surveyors prepared to undertake work. The fees which should be paid for the time required vary widely according to the character of the work, and the Council would, if desired, be willing in their honorary capacity to advise public bodies on these questions in the case of any particular work.

### Setting-up a Bird's-eye View Perspective.

TYKE (Doncaster) writes: "Please state the most expeditious way of setting-up and preparing a bird's-eye view perspective. The example in question covers about 10 acres of building land, to contain about 100 houses."

—A bird's-eye view perspective differs from an ordinary perspective in the position of the horizon line, which is taken at 50 ft., 100 ft., or even 200 ft. above the ground (as may be thought desirable) instead of 5 ft. or 5 ft. 6 in. The accompanying diagram is an illustration in plan showing how a bird's-eye view of a roofed factory has been blocked out. The position of the eye being selected on the ground and the Picture Plane drawn through the nearest angle of the building, the vanishing points on plan have been projected on to the Picture Plane by a series of lines converging to the eye. The vanishing points (V.P.'s) are then found by drawing line from the eye parallel to the main sides of the building on plan till the Picture Plane is met. All these points on the Picture Plane are now projected vertically downwards. The Horizon line is laid down parallel to the Picture Plane and the V.P.'s fixed thereon, and the angle of building AB fixed on the ground is projected down from A, where building plan meets Picture Plane. The height of building AB is that shown on elevation and the ground point A is located in the perspective at a distance AC below the



SETTING-UP BIRD'S-EYE VIEW PERSPECTIVE.



Line, such as will be convenient sufficient to give a complete overlook whole scheme. The remainder pre-absolutely no difficulty whatever to acquainted with the usual method of a perspective drawing, but the is not a true bird's-eye view, looking ards vertically on to a horizontal but rather that obtained by looking istant object horizontally from the a high tower.

G. A. T. MIDDLETON.

## SPECIAL LEGAL REPORTS.

### Contractor's Claim for Excavation Work : Judgment.

*Howell J. Williams, Ltd.*

Official Referee's Court. Before Mr. Muir Mackenzie.

Muir Mackenzie, one of the Official Referees of the High Court, delivered his judgment in this action, which was brought to recover £817 9s. 6d. and an account of £1,667 9s. 6d. for excavation work for the foundations of the defendants' dwellings on the Lewis Trust at Leader Street, Chelsea, erected by the defendants for the trustees of the Lewis Trust.

The plaintiff is a contractor carrying on business at Terminus Wharf, Paddington, and the defendants are builders, of Berkeley Street, London. The defendants alleged that the work was done, but disputed the accuracy of the measurements and charges.

The Official Referee, in giving judgment, said that on or about February 19, 1913, the defendants invited the plaintiff to dig trenches for the foundations of the buildings, stipulating that there should be 4,376 cubic yards of trench not exceeding 6 ft. in depth, and 200 cubic yards of trench to form pile foundations exceeding 6 ft. and not exceeding 200 cubic yards not exceeding 6 ft. and 200 cubic yards not exceeding 6 ft. and 200 cubic yards not exceeding 6 ft. Upon these figures the plaintiff quoted a price of 4s. per cubic yard, which he afterwards reduced to 3s. 9d., including labour and strutting. The defendants had a general foreman on the site and by orders conveyed through him the plaintiff made trenches, the majority of which differed in depth from the original contract. The defendants had paid, into a sum paid into Court, £1,271 1s. 6d., and said that the plaintiff had overpaid. The plaintiff said that for 9d. per cubic yard he was only entitled to do the work specified in the contract, and that for anything done beyond that he was entitled to extra payment. His contention was supported by authority and he (the learned Referee) held that the plaintiff was under no contractual obligation to do only that work specified in the contract, and no other, at 9d. per cubic yard, and that he was entitled to be paid for his extra work. He carefully considered the evidence and came to the conclusion that the trenching was to be paid for at the rate of 4s. per cubic yard, and that would leave a balance due to the plaintiff beyond the sum paid into Court, of £92 1s. For this amount he gave judgment for the plaintiff, and judgment would be entered accordingly with costs on the High Court.

Counsel for the defendant applied for a writ of certiorari, which the Referee granted on the terms, observing that in his opinion,

there was a fair question for argument on appeal.

Counsel for the plaintiff were Mr. F. A. Greer, K.C., and Mr. F. O. Langley, and for the defendant Mr. J. B. Mathew, K.C., and Mr. Craig Henderson.

### Liability to Sub-contractors.

*Hampton v. Glamorgan County Council.*

July 16. King's Bench Division. Before Mr. Justice Horridge.

This was an action by Mr. R. M. Hampton, trading as Hampton and Co., City Road, Cardiff, heating engineers, against the Glamorgan County Council to recover balance of an account amounting to £200.

The claim arose under the following circumstances. Mr. S. Shail, a builder, of Llandaff, obtained a contract from the County Council to build an intermediate school at Treforest. Messrs. Hampton and Co. submitted an estimate for heating the school buildings to Messrs. Evans, Williams, and Evans, of Pontypridd, the architects, who accepted the tender of £391, and the plaintiffs carried out the work. One payment of £200 was made on account by Mr. Shail, who, however, made no further payment. Plaintiffs' case was that the architects promised to see they were paid for the work and therefore they held that the County Council were liable for the balance.

The Council submitted that the plaintiffs were doing the work for Mr. Shail and should look to him for the money. They disputed liability and further said that they had never given Messrs. Evans, Williams, and Evans authority to act as their agents.

Mr. Colam, K.C., and Mr. A. Fortune appeared for the plaintiffs, and Mr. Roche, K.C., and Mr. Field for the defendants.

Mr. Colam said there was no dispute as to the work being done, the only question was, who was to pay for it. Plaintiffs' contention was that they entered into the contract with defendants through the agency of the architects or the builder. Mr. Hampton did not know Mr. Shail was the builder for long after the contract was made. Mr. Hampton, sen., took the apparatus to Pontypridd and showed it to Mr. George Evans, who said, "I am satisfied; the contract is yours."

Mr. Roche said the question was as to agency. The defendants contended that the contract was not with them. Defendants said it was a lump sum contract, in which work done by the plaintiffs was included, and therefore the builder, and not the Council, was liable.

His Lordship, in giving judgment, said the question to be decided was whether the contract made by Mr. Shail with plaintiffs was entered into on Mr. Shail's behalf or whether it made the County Council principals. In his lordship's opinion the Council became principals through their agent Shail, and therefore he held that the plaintiffs were entitled to judgment for the amount claimed, with costs.

A stay of execution was granted under the usual conditions.

### House of Lords Decision Under the Housing and Town-planning Act.

*Arlidge v. The Local Government Board.*

July 20. House of Lords. Before the Lord Chancellor, and Lords Shaw, Moulton and Parmoor.

Reserved judgment was delivered in this appeal, which was by the Local Government Board from a decision of the Court

of Appeal, and related to appeals to the Local Government Board under the Housing and Town Planning, etc., Act, 1909 (see our issue of October 22, 1913, p. 399).

Before a Divisional Court of King's Bench, (Justices Ridley, Coleridge, and Bankes), the Local Government Board showed cause against a rule nisi for a writ of certiorari obtained against them on the ground that they had not determined in manner provided by law an appeal by one William Arlidge from the refusal of the Hampstead Borough Council to determine (i.e., to cancel) a closing order made by the Council under Section 17, Sub-section 2, of the Act, prohibiting the use for human habitation of a certain dwelling house. The applicant first appealed to the Board from the closing order. That appeal was dismissed, a "public inquiry" having been first held as directed by Section 39 of the Act. He also applied, under Section 17, Sub-section 6, to have the closing order determined. The Local Authority refused to determine the closing order, and from this refusal the appellant also appealed to the Local Government Board. A report was made by one inspector and forwarded to the Board, but its contents were not disclosed to the appellant, and ultimately the Board, after considering the matter and hearing the appellant, dismissed the appeal.

Before the Divisional Court the appellant complained (1) that he had not been heard by himself or by some advocate on his behalf, between the date of the inquiry and the date of the decision; (2) that the contents of the inspector's report were not made known to him, and (3) that the proceedings were null and void because it nowhere appeared that the person who gave the decision was the person who considered the facts and arguments.

The Divisional Court, in discharging the rule nisi, held that the Local Government Board was not bound to hear an appellant or anyone on his behalf after receiving the report of their inspector on the inquiry and before dismissing the appeal, and, further, that a properly authenticated order of the Local Government Board made upon an appeal was evidence that the appeal was considered and decided by the Board, or by some person properly appointed to hear it for and on behalf of the Board, until the contrary was proved.

From this the applicant appealed to the Court of Appeal, who, by a majority, allowed the appeal of Arlidge.

The Local Government Board appealed to the House of Lords, who allowed the appeal, thus restoring the judgment of the Divisional Court.

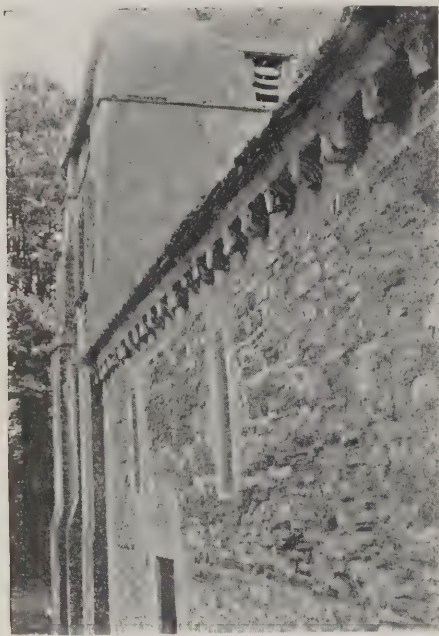
The Lord Chancellor moved that the appeal of the Local Government Board should be allowed.

Lord Shaw said that in so far as the term "natural justice" meant that a result or process should be just, it was harmless, though it might be a high-sounding expression. In so far as it attempted to reflect the old *jus naturale*, it was a confused and unwarrantable transfer into the ethical sphere of a term employed for other distinctions, and in so far as it was resorted to for other purposes it was vacuous. The Local Government Board showed extreme patience and handled the case with scrupulous regard to their statutory duties and to the rights of all concerned in the matters at issue.

Lords Moulton and Parmoor concurred.



## PHOTOGRAPHIC AND SKETCHING COMPETITION.

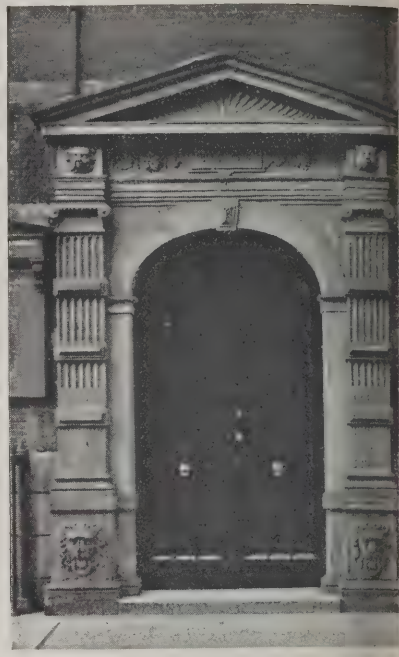


STUDLAND CHURCH, DORSET: DETAIL  
OF NORTH WALL.

Submitted by Mr. H. R. Creighton.

The prize of one guinea is this week awarded to Mr. Gordon Hemm, of 20, Cooper Street, Manchester, for the photograph, reproduced below, of a console from Manchester Old Town Hall. The detail is one of particular interest, and its value is enhanced by the drawing which, in addition to showing the side elevation of the console, gives a good indication of the detail which is necessarily obscured by shadow in the photograph. Manchester Old Town Hall as our readers are aware, is now demolished, though the main façade has been preserved and re-erected elsewhere. It was built in the first quarter of the nineteenth century from the designs of Francis Goodwin.

Two other photographs are reproduced — one showing the north wall and tower of the Norman church at Studland, Dorset (sent by Mr. H. R. Creighton, of East Finchley), and the other a Dutch Renaissance doorway from Leyden (sent by Mr. R. A. F. Riding, of Barrow-in-Furness). These illustrations are, of course, quite interesting, and we are glad to be able to show them, but we think it only fair to point out that preference will be given to work of the character of the detail from Manchester Old Town Hall, which gains the prize.



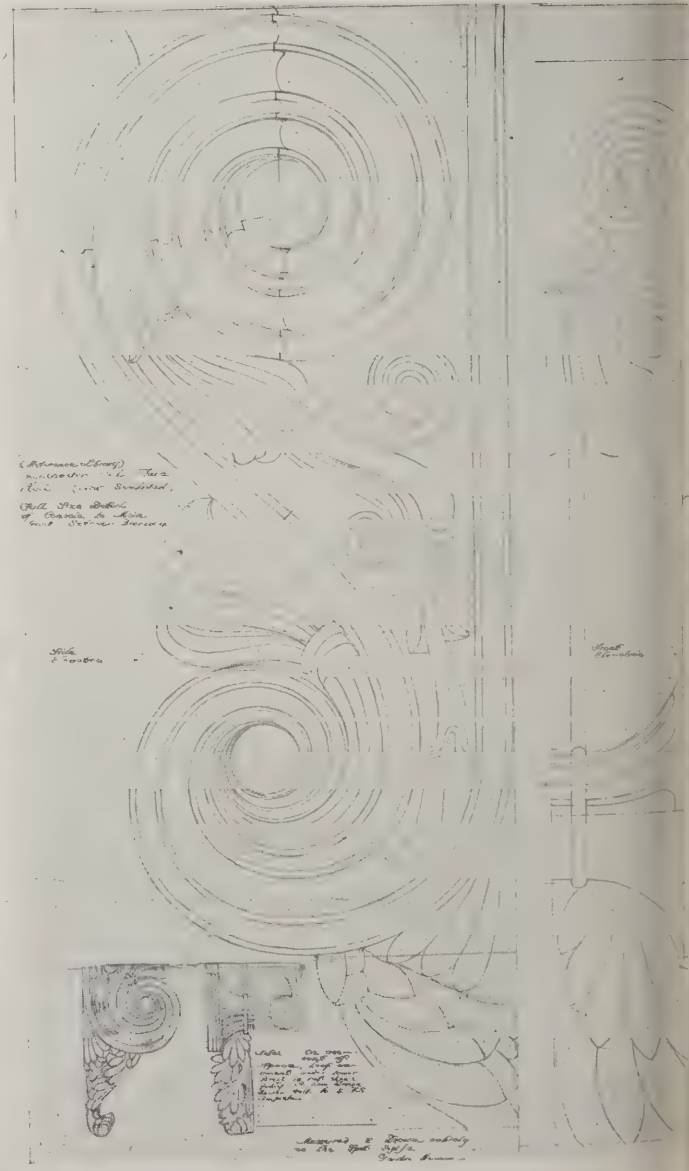
DOORWAY, 59, LANGESTRAAT, LEYDEN,  
HOLLAND.

Submitted by Mr. R. A. F. Riding.



MANCHESTER OLD TOWN HALL: DETAIL OF CONSOLE TO MAIN DOORWAY (Prize Photograph).

Submitted by Mr. Gordon Hemm.





## NATIONAL FEDERATION AND THE LOCK-OUT.

summer meeting of the National Federation was held on Wednesday last at Cardiff under the presidency of Mr. W. J. Jones (Cardiff), and was very largely attended. The Executive Council met on Thursday and received the result of the lock-out for a national lock-out in support of the London Master Builders' Association. On Wednesday morning the delegates were welcomed by the Lord Mayor of London, who was subsequently thanked by the President and Alderman Jessop (Cardiff).

A cordial welcome was extended to delegates from South Africa and New South Wales, and also to Mr. F. Van Ophem, President of the International Federation. Delegates having replied,

A. G. White (Secretary) presented a half-yearly report of the Council, stating that there had been a further increase in the membership. The total number of local associations affiliated was 54, with an aggregate membership of 6,222. The Federation was affiliated to the International Federation of Building and Public Works Contractors, headquarters at Brussels. Trade unions were urged to improve and unemployment was, but there was some apprehension there would be a shortage of labour if the trade got busy. This was

thought to be partly due to the consideration which had been going on for some years past. The report next dealt with the Boards of Conciliation, which had held sittings in all parts of the country. During the year the negotiations in regard to the forms of contract and sub-contract had been in the hands of the Institute of Builders, which had

to press matters forward, and it was thought would be able soon to report favourably on the progress made. A demand for a Committee of the St. Helens Federation, the matter was taken up both by the Lancashire and Cheshire Federation and the National, and after some consideration an opportunity was afforded for an interview by deputation of the committee in question, and it was thought the Corporation would now fall into line with the general practice. It was decided to hold a conference of the secretaries of the Federation in October, and contributions were desired. The

the Institute had undertaken, in connection with the Quantity Surveyors' Association, to try to standardise the method of measuring reinforced concrete. An opportunity was availed of to have the subject considered by a Joint Committee representing the Federation and the Institute of Builders, and in the result useful suggestions were made to send to the Concrete Institute.

On the subject of reinforced-concrete ties, the President remarked that the subject was originally taken up by the Concrete Institute, but they did not go so far as some respects as the builders wished. Quantities which had hitherto been estimated had been absolutely insufficient for a contractor to base his estimates

on. Mr. Cook (Bristol) initiated a discussion on the question of the lack of apprentices in the building trade, and moved that the subject be inserted in the report to the effect that the Council should earnestly urge the Government to Federated Associations and local firms giving the question their

most serious consideration with a view to supplying the reasonable requirements of the trade. He remarked that if the falling away in the number of apprentices continued there would be trouble ahead in the trade.

Mr. John Lloyd (Neath) thought that unless they took the matter up seriously the labour troubles they had at present would be nothing to what they would have to meet when there was a dearth of skilled workmen.

Mr. Renshaw (London) pointed out what had been done by the Institute of Builders in approaching the L.C.C. Education Committee to bring about a scheme of apprenticeship for boys. He remarked that, whilst he did not wish to belittle the work done in the way of day trade schools, yet those could give no real supply of the boys they required in the trade. What they wanted was a system by which boys could be taken from the elementary schools into the workshops and on to the jobs, so that they could learn their trade under actual working conditions. The Institute of Builders were asking the President of the Board of Education to receive a deputation on the matter.

Several delegates expressed the view that the reason for the lack of apprentices was simply because boys could get more money in other occupations, and it was urged that the remedy would be to pay higher wages.

The Secretary read the following report: "The Executive Council adopted the report of the Administrative Committee on the result of the ballot for a lock-out, which was 7,319 votes for and 1,739 against. It despatched the following ultimatum to the executives of the general unions or trades which are still obdurate:—

"Dear Sir,—I am instructed to give you notice that, unless the present dispute in London is brought to an end so far as your society is concerned on or before August 15 next, this Federation will issue instructions for an immediate lock-out of the members of your society.

"Whilst this Federation regrets that any such course is necessary, I am desirous to point out that this action has become imperative in consequence of all reasonable suggestions for a settlement put forward by the accredited representatives of the employers and operatives having been rejected by the London operatives, although accepted by the London employers.

"This Federation has always recognised and appreciated the general loyal observance of agreements by your society throughout the provinces, but it is obvious that, if a section of your society in London can successfully break agreements that have been entered into after all formal requirements on either side have been complied with, and can receive the support of the provinces, then no agreements throughout the country will any longer be a safeguard to the trade.—Yours faithfully, "A. G. WHITE, Secretary."

The Executive Council further resolved that it be called together again on August 18 to receive a report, and that meanwhile the Administrative Committee be empowered to deal with any matters which may arise under this issue.

The Secretary announced in reply to a question that the following were the unions which had been written to:—National Association of Operative Plasterers, Operative Bricklayers' Society (London Order), Amalgamated Society of Carpenters and Joiners, General Union of

Carpenters and Joiners, United Kingdom Plumbers' Association, London Plumbers' Association, National Union of Operative Heating and Domestic Engineers, United Builders' Labourers' Union, the Navvies', Builders' Labourers, and General Labourers' Union, United Order of General Labourers of London, National Union of Gas Workers and General Labourers, National Amalgamated Society of Operative House and Ship Painters and Decorators.

The Conference decided that the report should be considered in private, and they discussed it for practically the rest of the sitting and carried it unanimously.

As a result of the lengthy consideration of the lock-out report the other matters on the agenda had to be postponed till the next meeting in London. Amongst the matters thus adjourned was a resolution from the Yorkshire Federation urging that when Government Departments gave sanction to local authorities for the raising of loans for the construction of houses and other public works it should be made a condition of the sanction that the works should be carried out by private contractors after open competition.

## R.I.B.A. EXAMINATION RESULTS.

## Preliminary.

The Preliminary Examination, qualifying for registration as Probationer R.I.B.A., was held in London and the undermentioned provincial cities on June 16 and 17, 1914. Of the 150 candidates admitted, 41 were exempted from sitting, and the remaining 109 examined, with the following results:

| Centre.    | Examined. | Passed. | Relegated. |
|------------|-----------|---------|------------|
| London     | 53        | 40      | 13         |
| Birmingham | 8         | 6       | 2          |
| Bristol    | 7         | 7       | —          |
| Cardiff    | 4         | 3       | 1          |
| Dublin     | 2         | 2       | —          |
| Glasgow    | 3         | 2       | 1          |
| Leeds      | 10        | 8       | 2          |
| Liverpool  | 4         | 4       | —          |
| Manchester | 11        | 8       | 3          |
| Newcastle  | 7         | 7       | —          |
|            | 109       | 87      | 22         |

The passed and exempted candidates, totalling 128 altogether, are as follows:

|                                   |                                     |
|-----------------------------------|-------------------------------------|
| Abbott, C. E., Birmingham.        | Currie, M., Glasgow.                |
| Appleton, G. L., Paignton.        | Davidson, A. E., St. Helens.        |
| Armstrong, D. G., Cambridge.      | Davies, J., Bridgend, Glam.         |
| Asser, H. E., Ealing.             | Depledge, J. A., Hounslow.          |
| Bader, M., Hackney.               | Dolman, H. G., Bournemouth.         |
| Barton, W., Olapham Junction.     | Dowsett, T. W., London, W.C.        |
| Beasley, A., Sneyton.             | Dunkerley, R. B., Oldham.           |
| Bentley, C. M., Whitehaven.       | Durant, N. J., Gowerston, Glam.     |
| Blakeley, T., Stanwix.            | Earle, L. M., Herne Hill, S.E.      |
| Boulton, H. G., Stourbridge.      | Eastman, R. V., Southampton.        |
| Bown, L. J., Yeovil.              | Eberlin, A. E., Nottingham.         |
| Bragg, E. W., Upper Norwood.      | Edwards, H. W., Kingston-on-Thames. |
| Brooke, Faith, Warwick.           | Evans, T. J., Porthcawl.            |
| Brown, F. C., Carlisle.           | Evans, W. C., Port Talbot, Glam.    |
| Burge, B., Carlisle.              | Felgate, E. G., York.               |
| Burr, A. V. P., London, W.C.      | Foster, A. S., Camden Town, N.W.    |
| Cale, W. F., East Finchley, N.    | Fox, A. E., London, W.              |
| Carmichael, D. A., Greenock, N.B. | Griffiths, H., Birkenhead.          |
| Carnall, R. G., Fowey.            | Grumant, R. T., Peckham, S.E.       |
| Challen, H. B., Tottenham.        | Halliday, F. L., Stockport.         |
| Chester, G. S., Broadstairs.      | Hanson, C. K., Ossett.              |
| Chevalier, B. B., Canonbury, N.   | Harrierson, F. C. S., Hamsteels.    |
| Clark, L. C. E., London, W.       | Haughan, J. H., Silloth.            |
| Clarke, H. F., Doncaster.         | Heath, E. T., Wakefield.            |
| Collins, J. J., Stepney, E.       |                                     |
| Cormier, E., Paris.               |                                     |
| Cullen, A., Glasgow, W.           |                                     |



Hill, M. O., Bridgewater, Somerset.  
 Hiorns, P. T., Devonport.  
 Holman, C. E., Buckhurst Hill, Essex.  
 Holt, F., New Brighton.  
 Hough, T. B. D., Bridlington, Yorks.  
 Houston, J., Kilbirnie.  
 Howard, C. E., Chesham.  
 Hunkin, W. B. C., Neath.  
 Hunt, N. S., Kensington, W.  
 Jackman, H., Leeds.  
 Jackson, H. T., Andoversford, Glos.  
 James, F. R., Uckfield.  
 James, W. P., Streatham, S.W.  
 Jefferies, F. E., Dalton, N.E.  
 Jones, H., Aylesbury.  
 Kerr, H. V., Brondesbury, N.W.  
 Kiralfy, E. G., Barnes, S.W.  
 Knott, A. L., Cricklewood, N.W.  
 Langley, F. H., Aylestone.  
 Larkin, H. E. A., Kensington, W.  
 Lathan, E. G., London, N.  
 Lavender, E. P., Walsall.  
 Lewis, A. D., Surbiton.  
 Lewis, A. E., Eastbourne.  
 Lloyd, H. T., Cardiff.  
 Lynam, C. R., Stoke-on-Trent.  
 Lynch, M. J., London-derry.  
 Masey, R. J., Anerley, S.E.  
 Mead, C. J., Chesham.  
 Mee, C. E., Petersfield.  
 Miller, B. A., Birkenhead.  
 Morris, W., Withington.  
 Mullett, H. L., Cambridge.  
 Noke, C. J., Stoke-on-Trent.  
 Nutt, E. J., Nottingham.  
 Owen, A. T., New Brighton.  
 Padget, M. W., Newport, Mon.  
 Pallett, E., London, W.C.  
 Parrott, D. H., Kidlington.  
 Paulden, W., Forest Hall, Northumberland.  
 Phelps, L. F., Gloucester.  
 Phillips, E., Leeds.  
 Pickford, A. C., Wandsworth Common, S.W.  
 Pitcher, D. H. S., Grimsby.  
 Potter, E. J., Ballinasloe.  
 Pyper, J. W. A., Chippenham.  
 Redfern, J., West Gorton.  
 Reeves, S., Putney, S.W.  
 Reixa y Garcia del Busto, F., Westminster.  
 Reynolds, J. E., Bedford Park, W. Hale.  
 Robertson, C. W. V., Plymouth.  
 St. Leger, C. D. S., Hampstead, N.W.  
 Seneviratne, B. C., London.  
 Senyard, L., Wandsworth, S.W.  
 Shannon, W. A., Bexhill-on-Sea.  
 Simpson, A. A., Handsworth.  
 Skipper, E. H., Norwich.  
 Sloat, L. L. T., West Hampstead, N.W.  
 Smith, A. E., Leicester.  
 Smith, E. M., Scarborough.  
 Steen, T., Avon.  
 Steele, H. R., Westminster.  
 Streathfield, E. A., Weybridge.  
 Teasdale, J. S., Charlwood.  
 Thomas, J., Yeovil.  
 Thompson, H. W., Grimsby.  
 Twiss, W., Widnes.  
 Waterhouse, M. T., Boxmoor.  
 Webb, F. H. H., Redland.  
 Wheatley, H. R., Sandbach.  
 Wilkins, G. C., Thornton Heath.  
 Williams, H. D., Kettering.  
 Williams, H. T. B., Llanfairfechan.  
 Wilson, A., Whitehaven.  
 Wilson, H. E., London, N.  
 Wood, H. W., Handsworth.

#### Intermediate.

The Intermediate Examination, qualifying for registration as Student R.I.B.A., was held in London and the under-mentioned provincial cities from June 12 to 19. Eighty-one candidates were examined, with the following results:

| Centre.    | Examined. | Passed. | Relegated. |
|------------|-----------|---------|------------|
| London     | 47        | 27      | 20         |
| Belfast    | 3         | 2       | 1          |
| Bristol    | 3         | 3       | —          |
| Cardiff    | 5         | 3       | 2          |
| Dublin     | 2         | —       | 2          |
| Glasgow    | 3         | 2       | 1          |
| Leeds      | 3         | 2       | 1          |
| Liverpool  | 3         | 3       | —          |
| Manchester | 11        | 4       | 7          |
| Newcastle  | 1         | 1       | —          |
|            | 81        | 47      | 34         |

The passed candidates are as follows, the names being given in order of merit as placed by the Board:

Harrison, A. St. B., Shearer, T. S., Chelsea, London, W.C.  
 Rayson, T., Oxford.  
 Cashmore, F. M., Blake, J. R., Malvern.  
 Hampstead, N.W.  
 Harris, W. H., Stoke Newington, N.  
 Keep, N. P., Wandsworth Common, S.W.  
 Bridge, T. M., Walkden.  
 Watt, W. J., Keith, N.B.  
 Gordon, J. D., Newtownards.  
 Jones, N. W., Swansea.  
 Lyne, E., jun., London, S.W.  
 Norris, L. A., Wandsworth, S.W.  
 McLean, J. M., Paisley.  
 Gostling, W. B., Stroud.  
 Webb, J. A., Melton Mowbray.  
 Green, N.  
 Blackburn, N. A., Dewsbury.  
 Tunnard, H. B., London, S.E.  
 Keyte, J. R., Moseley.  
 Shiber, G. S., London, W.  
 Spurway, G. V., Taunton.  
 Burt, J. J. D., Plymouth.  
 Turner, F. W., Aylesbury.  
 Foster, L., Leeds.

Lewis, H. M., Pontypridd.  
 Thomson, J. S., Wimbledon, S.W.  
 Neely, R. R., Belfast.  
 Bevan, G., Bridgend, Glam.  
 Harrison, H. St. J., Jesmond.  
 May, T. W. V., Crouch End, N.  
 Beaverstock, H., Nottingham.  
 Meredith, J. N., Mold.  
 Carey, R. W., Canonbury, N.  
 Goeder, F. E., London, W.C.  
 Heywood, L., Smithills, Bolton.  
 Hinton, C. A., Scotforth.  
 Key, W. D., Upminster.  
 McBeath, J. G., Sale.  
 Pite, I. B., Hampstead, N.W.  
 Pope, C. L., Dorset.  
 Preston, W. C., Windermere.  
 Rollin, P. W., London, S.W.  
 Sacre, L. H., Chelmsford.  
 Slater, N. W., Woolstanton.  
 Strickland, H. C. V., Fulham, S.W.  
 Tanner, A. S., London, W.C.  
 Walch, J. B. M., Dulwich, S.E.

The number of failures among the relegated candidates in each subject of the Intermediate Examination was as follows:

|                                                         |    |
|---------------------------------------------------------|----|
| A. Principal Styles and General History of Architecture | 5  |
| B. 1. Simple Applied Construction                       | 18 |
| B. 2. Theoretical Construction                          | 14 |
| C. 1. Historical Architecture:—                         |    |
| (a) Greek and Roman                                     | 1  |
| (b) Byzantine and Romanesque                            | —  |
| (c) French and English Gothic                           | 3  |
| (d) Italian, French, and English Renaissance            | 1  |
| C. 2. Mathematics and Mechanics                         | 22 |
| C. 3. Design                                            | 22 |

#### Exemptions from the Intermediate.

The following Probationers possessing the certificates required under the regulations were exempted from the Intermediate Examination, and have been registered as Students, viz.:

Archer, H. D., Stockwell, S.W.  
 Braddock, T., Merton, S.W.  
 Carmichael, D. A., Greenock.  
 Cole, E. R. F., Bootle.  
 Cormier, E., Paris.  
 Davidson, A. E., St. Helens.  
 Dicksee, H. J. H., London, N.W.  
 Dowsett, T. W., London, W.C.  
 Harkess, W., Stockwell, S.W.  
 Miller, B. A., Birkenhead.  
 Threadgold, R. A., Liverpool.  
 Wilson, A., Whitehaven.

#### Final and Special.

The Final and Special Examinations, qualifying for candidature as Associate R.I.B.A., were held in London from June 25 to July 3. Of the 91 candidates examined, 45 passed, and the remaining 46 were relegated. The successful candidates, given in alphabetical order, were as follows:

Anderton, R., Preston.  
 Barber, R. A., Wimbledon, S.W.  
 Bryant, H. P., Southampton.  
 Burnett, A. S., Hampshire.  
 Callender, G. W., London, E.C.  
 Cameron, K., Walsley.  
 Clark, W. L., Westminster.  
 Cooksey, H. T., Islington, N.  
 Dickeson, C. A., London, W.C.  
 Ebbs, E. H. M., Harlesden, N.W.  
 Fowell, J. C., Hammer-smith, W.  
 Godwin, W. H., Bewdley.  
 Harrison, W. H., Whalley.  
 Heerne, F., Oldham.  
 Hembrow, J., Edmonton.  
 Hickman, E. J., Moseley.  
 Howard, P., Manchester.  
 Hughes, B., London, W.C.  
 Isaac, W. J., Warrington.  
 Jarrett, E. R., West-cliff-on-Sea.  
 Jessop, B., Kimberley.  
 Kaltenbach, A. F., London, N.  
 Kruckenberg, F. L., York.  
 Ledger, G. H., Epsom.  
 Leech, W. L. B., West Ealing, W.  
 Macgregor, J., Golder's Green, N.W.  
 MacRae, E. J., Edinburgh.  
 Martin, E. A. L., Redruth.  
 Miller, S. R., Acton, W.  
 Peermahomed, A. B., Kilburn, N.W.  
 Perkins, T. L., Clifton.  
 Philp, R. M. H., London, E.C.  
 Ridlev, G. W., East Grinstead.  
 Ripley, C. G., London, S.W.  
 Rolley, H. E., Chelsea, S.W.  
 Silcock, A., Bath.  
 Stafford, C. E., Derby.  
 Stanley, G., Trowbridge.  
 Tavor, H. S., St. Neots.  
 Thompson, J. O., Sheffield.  
 Tyte, G. G. L., London, W.C.  
 Waddington, H. G., Ashton-under-Lyne.  
 Ware, P. M., London, W.  
 Whiteley, C. T., Shipley.  
 Wood, A. J., Leicester.

The number of failures among the relegated candidates in each subject of the Final Examination was as follows:

|                                              |   |
|----------------------------------------------|---|
| A. Design                                    | — |
| B. Construction—                             |   |
| (1) Foundations, Walls, Roofs, etc.          | — |
| (2) Iron and Steel                           | — |
| C. Hygiene                                   | — |
| D. Properties and Uses of Building Materials | — |
| E. The Ordinary Practice of Architecture     | — |
| F. The Thesis                                | — |

#### The Final Examination: Distinction Thesis.

Thompson, James Osbert: "Elementary Education and Physical Culture."

## COMPETITIONS.

#### Shakespeare National Memorial Theatre.

As recently announced in our columns the Shakespeare Memorial Committee is instituting a competition for designs for the erection of a National Theatre as a preliminary step, it invites architects to submit photographs or drawings of important buildings they have erected, designed, with a view to the selection of six architects, who will be invited to take part in the competition.

The Committee reserves the right to select two names to the number of architects selected, and has appointed Mr. Collcutt, P.P.R.I.B.A., to act as assessor for the competition, to draw up the regulations and instructions, and to select designs.

The authors of five such selected designs shall each receive a premium of 500 guineas, and the author of the design placed first by the assessor shall receive a premium of 500 guineas, to be merged with the remuneration payable to him on completion of the contract drawings. Such remuneration shall be as provided in the schedule of charges for professional practice as sanctioned by the R.I.B.A.

Preliminary conditions of the competition may be obtained on application to the Secretary, the Shakespeare Memorial Committee, 3a, Dean's Yard, Westminster, London, S.W., to whom drawings and photographs must be sent on or before September 15, 1914.

The names of the architects sending designs, and also their designs, will be seen only by the assessor and the committee. The drawings may be original working drawings of buildings erected, or they may be elevation drawings of buildings designed but not erected. More than five drawings or photographs should be submitted, and not more than two perspectives. A short report of designs may be submitted, and also of buildings of importance designed or erected.

#### New School Sunderland Road Gateshead.

We are asked to state that Members of the R.I.B.A. must not take part in the above competition, the regulations not being in accordance with published regulations of the Institution of Architectural Competitions.

#### Housing Scheme, Bristol.

Bristol Health Committee are studying a scheme to the City Council for providing dwellings for workers at a total cost of over £50,000. Two sites are offered, Parson Street, Bedminster, and Station Road. It is proposed that not more than twenty houses per acre be erected, and long rows will be avoided. The scheme provides for 165 self-contained and forty-three double-tenement houses giving accommodation for 251 families.



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## ELECTRICAL NOTES.

*New Electrical Cooking Apparatus.*

As the summer passes and electric fans are disposed of to the retailers, makers of heating and cooking apparatus commence to announce their new designs for the winter season. It is true that there should really be no special season for electrical cooking apparatus, or, if there were any, it should be the summer, because in the winter coal fires are required to heat as well as to cook. Nevertheless, cookers and heaters generally go together, and therefore the increased sale of the latter in cold weather serves to induce a demand for the former. Amongst novelties announced now is the "Marvel" cooker, introduced by the Fireless Cooker Company, of West Bromwich. This is a little outfit comprising a sheet steel oven measuring 15 in. by 9½ in. by 10½ in., a hot plate 8½ in. diameter, a steamer with a copper bottom. The oven is well lagged and fitted with a movable rack. The sides and back are lined with aluminium. The heating elements are bolted to detachable cast-iron plates at top and bottom. The hot-plate is fitted with two heat regulators, and provision is made for a small hot-cupboard to be attached under it. The outfit further comprises a small switchboard with pilot lights, Zed fuses, and china switches, all mounted on polished teak, with cable connections run to the heating elements in flexible metallic tubing. The outfit is supplied in several sizes and is claimed to be very economical in use.

The "Universal" electric grill is another cooking outfit deserving of notice. It has been introduced by the Brompton and Kensington Accessories Company, Ltd., of 254, Earl's Court Road, S.W. (a

sub-company of the electric supply company of the same name). This cooker is a sort of hot-plate with a series of pans, for boiling, toasting, grilling, and cooking small dishes at the table. It has a heating element close to a frame with a surface of 7½ in. and 4½ in. The base, pans, and frame are nickel-plated and of well-finished appearance and the price is moderate. One of the pans is 2 in. deep, and can be used above or below the heater at the same time as some other pan is being used for preparing another dish.

*Electric Busses for South Shields.*

The Edison accumulator was talked of for many years on this side of the Atlantic, but little was known of its performances until Edison Accumulators, Ltd., was formed two or three years ago to work the patents here. There is now quite a small boom in electrical vehicles propelled by these accumulators, and it is hoped that this form of propulsion will become popular, not only in the interests of the electricity supply undertakings who will benefit, but also because the vehicles do not exhaust fumes like the petrol-driven vehicles. The first application of this modern form of accumulator traction to the public service is about to be made by the Corporation of South Shields, who have ordered two omnibuses to act as feeders to their tramway system. A trial of one of these busses took place in London recently with very successful results. The vehicle holds twenty-two passengers and is a single-decker. No conductor is employed, and the entrance is by the driver, who can collect fares. The drive is by a 5-horse-power series motor through a cardam shaft to a differential bevel lay shaft and silent roller side chains. The battery consists of sixty cells, distributed in boxes under the seats, where they are

easily accessible, and has a capacity of 300 ampère-hours, which will drive at twelve miles per hour over forty-five miles of level road. Charging is carried out at night, but a short "topping" charge at 500 ampères will be at the end of each journey. It is estimated that this overcharge increases the range by twenty-five to thirty miles per charge is good for the battery. The weight of the vehicle when fully loaded is 5 tons, the battery weighing 1,800 lb.

*New Half-Watt Lamps.*

The makers of these lamps are, as anticipated, steadily making improvements in regard to reductions in candlepower and price, without causing much inconvenience to the electric supply undertakings. The alterations in price relate to 350-watt 50 to 130-volt lamps, which are reduced by 5s., and the 1,000 to 1,500-watt 100 to 260-volt lamps, which are reduced by 10s.

The new types of lamps are 100-watt 200-candlepower and 200-watt 400-candlepower, 50 to 65 volts; 200-watt 400-candlepower and 300-watt 600-candlepower, 100 to 130 volts; and 500-watt 1,000-candlepower, 200 to 260 volts. The range has also been extended by so-called picture lamps, vertical and horizontal, for 100 to 130 volts. The horizontal type is intended for theatres, cinemas, etc., and the vertical type for outside shop-lighting. The necks of the new lamps have been shortened, which is a great advantage.

*Administrative Buildings, Leicester.*

The Leicestershire County Council are under consideration the question of acquiring land at the corner of Friar Lane and Grey Friars, Leicester, for the erection of administrative offices.



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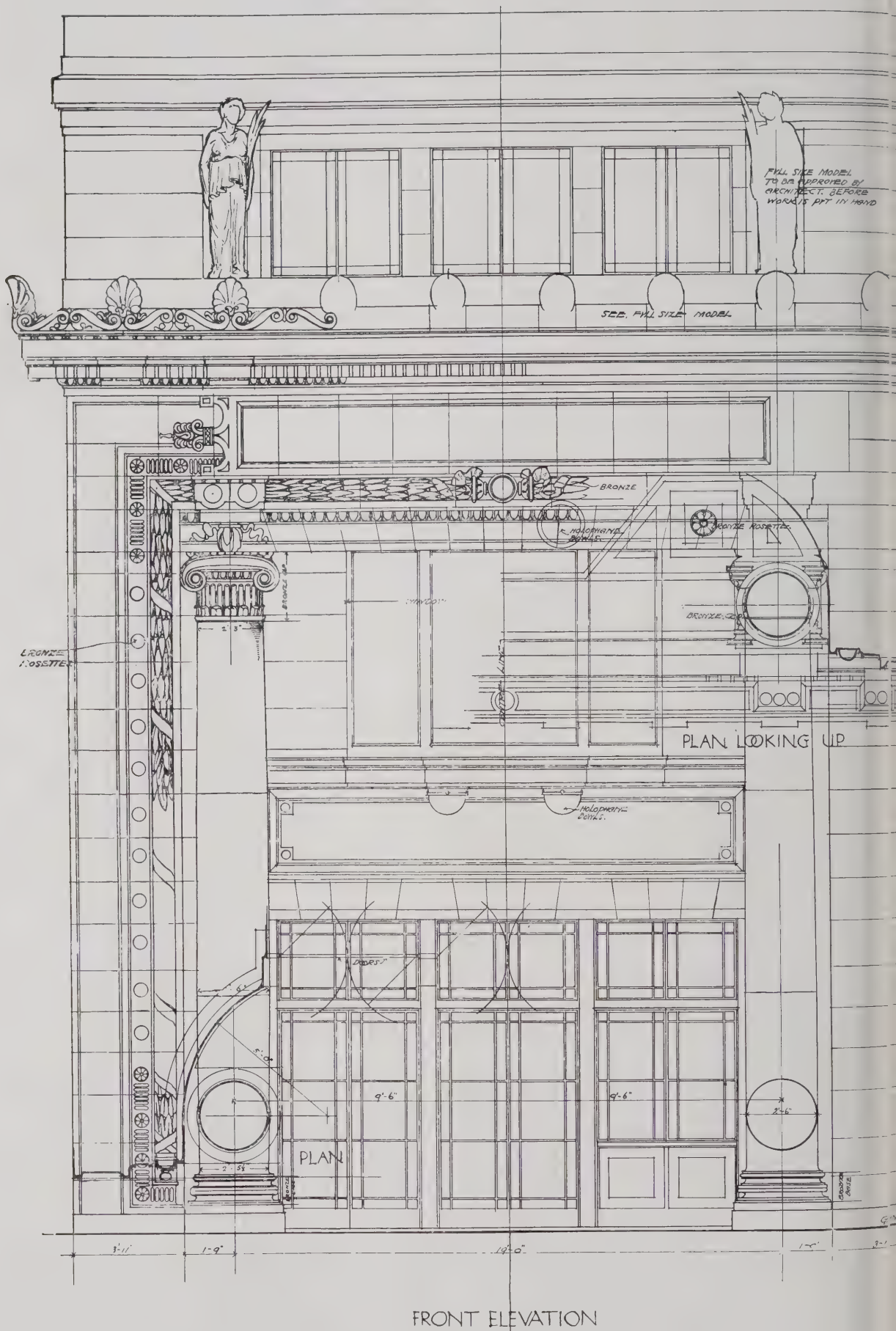
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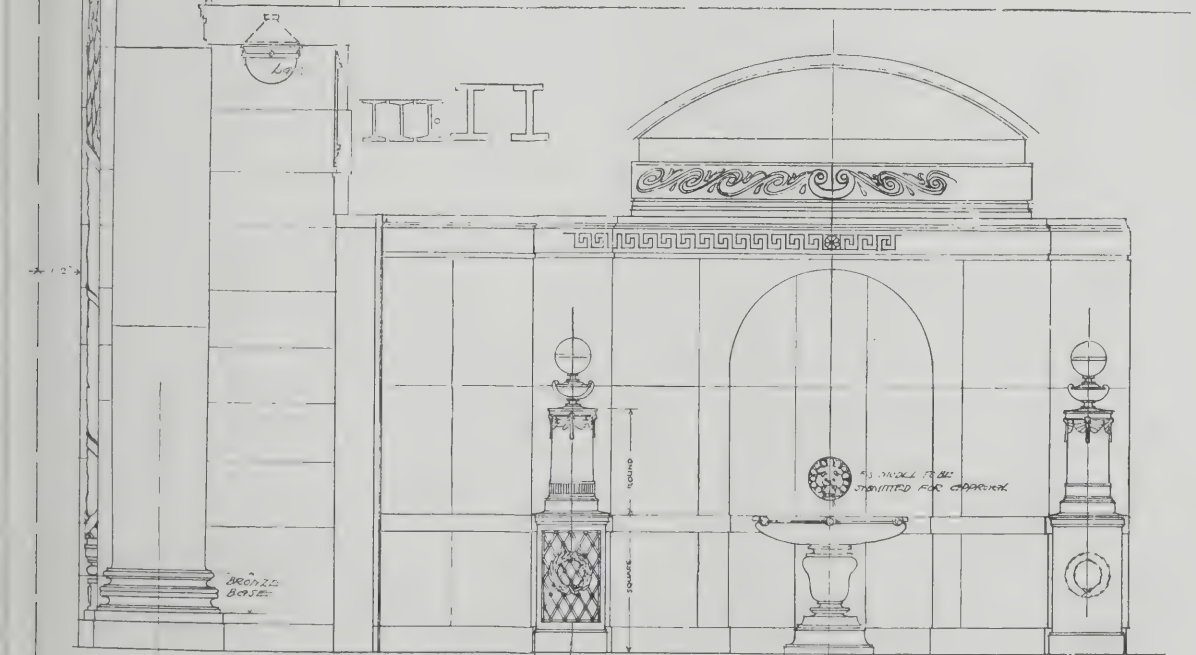


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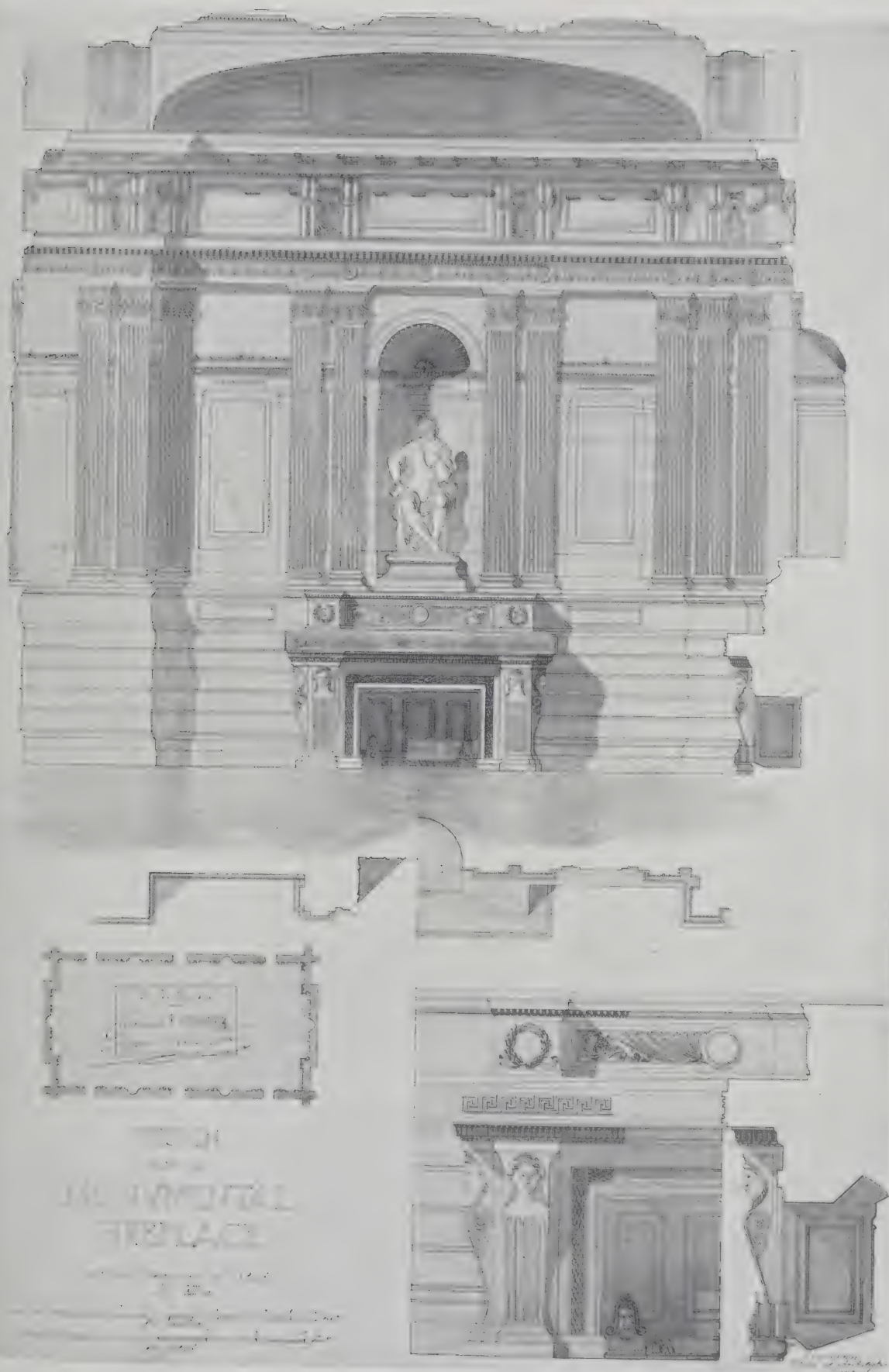


SMALL HOUSES OF THE LATE GEORGIAN PERIOD. XXI.—KENT HOUSE, THE MALL, HAMMERSMITH.





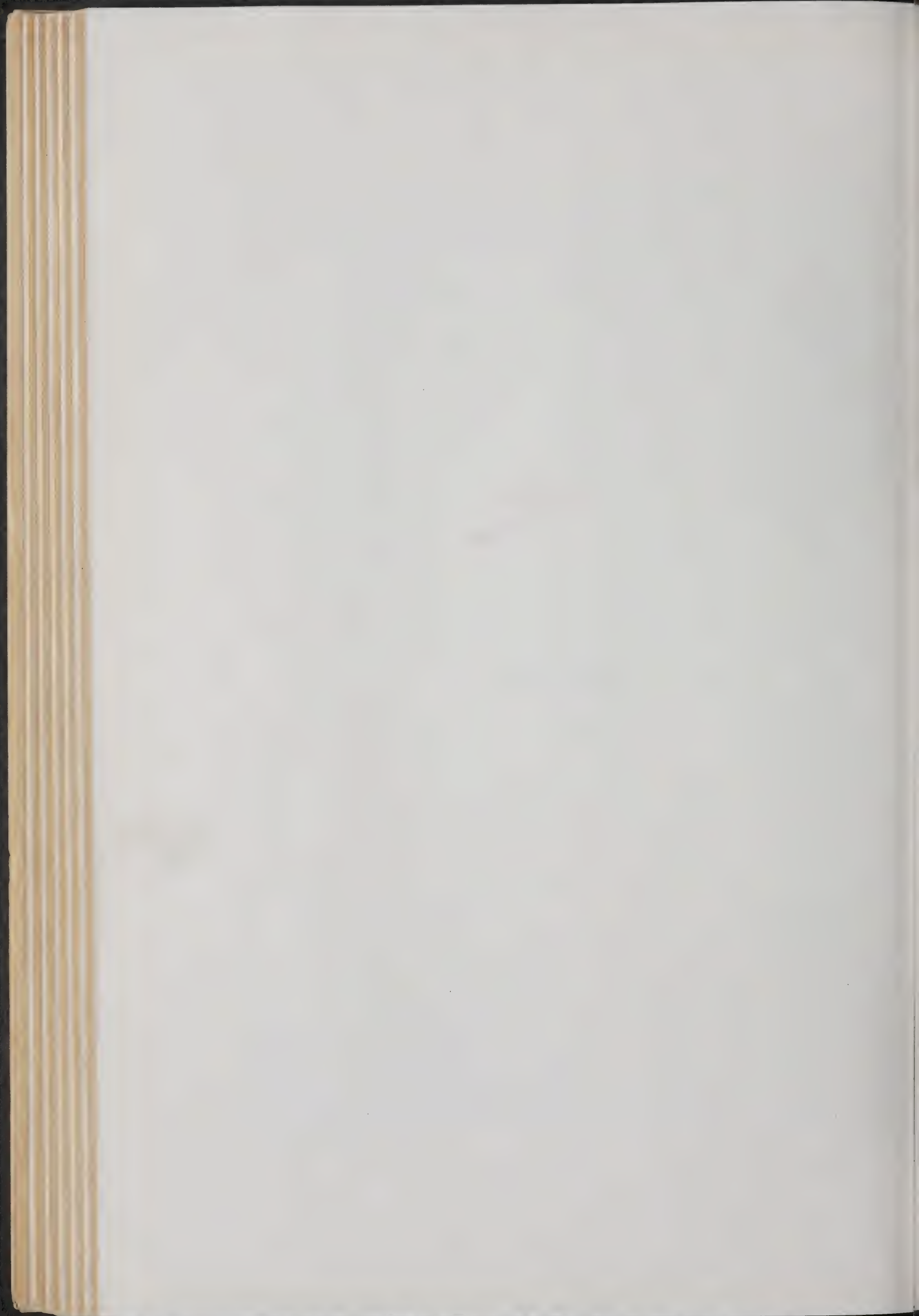




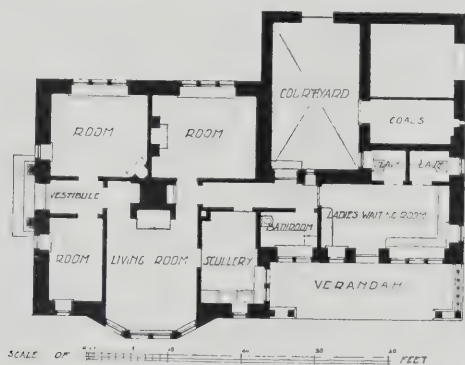
STUDENTS' DRAWINGS. XXVI.—APPROVED DESIGN FOR A MONUMENTAL FIREPLACE.

BY G. DAVIDSON.









MODERN DOMESTIC ARCHITECTURE. XXX.—THE LODGE, OVERTOUN PARK, GLASGOW.

WATSON AND SALMOND, FF.R.I.B.A., ARCHITECTS.



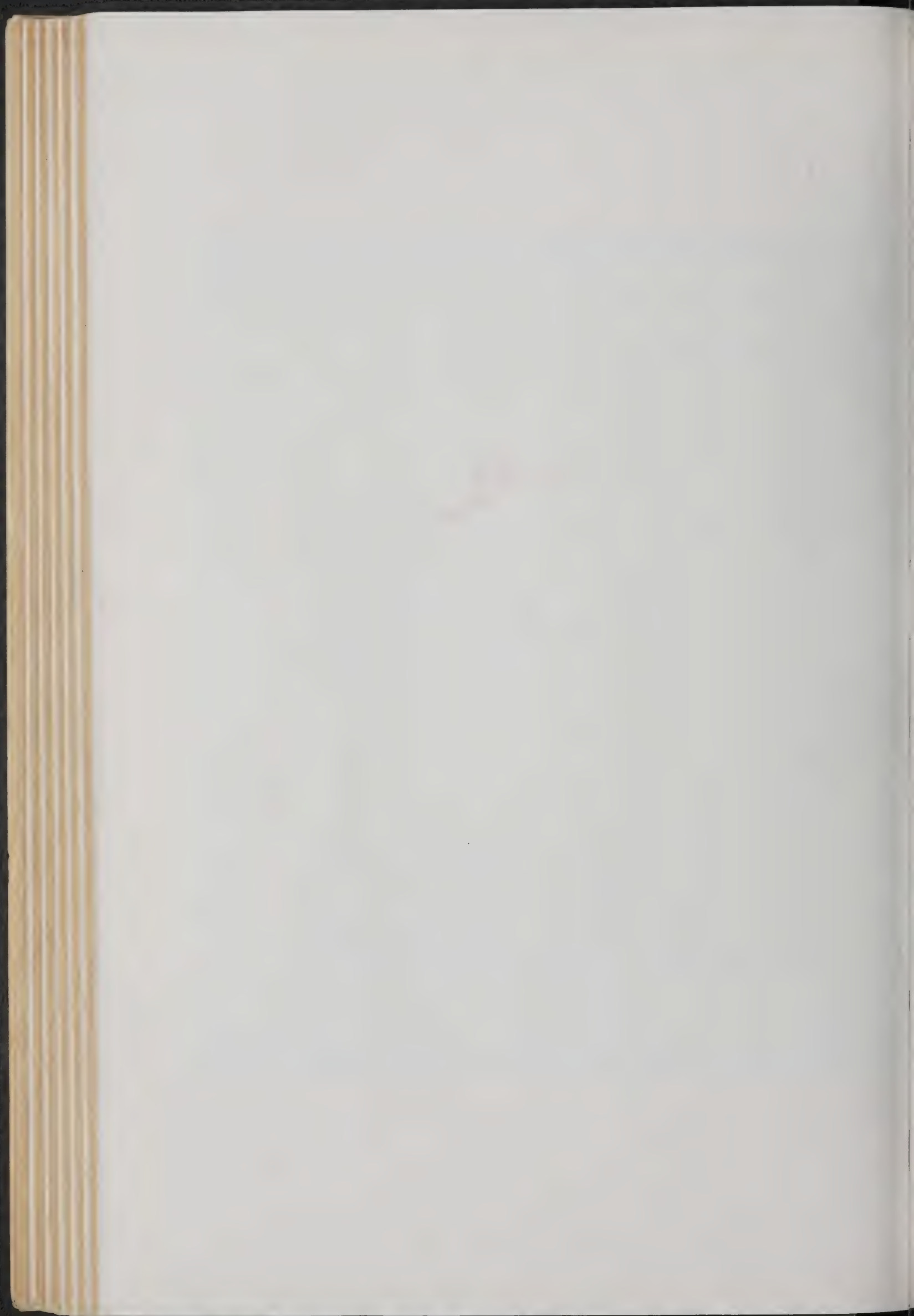




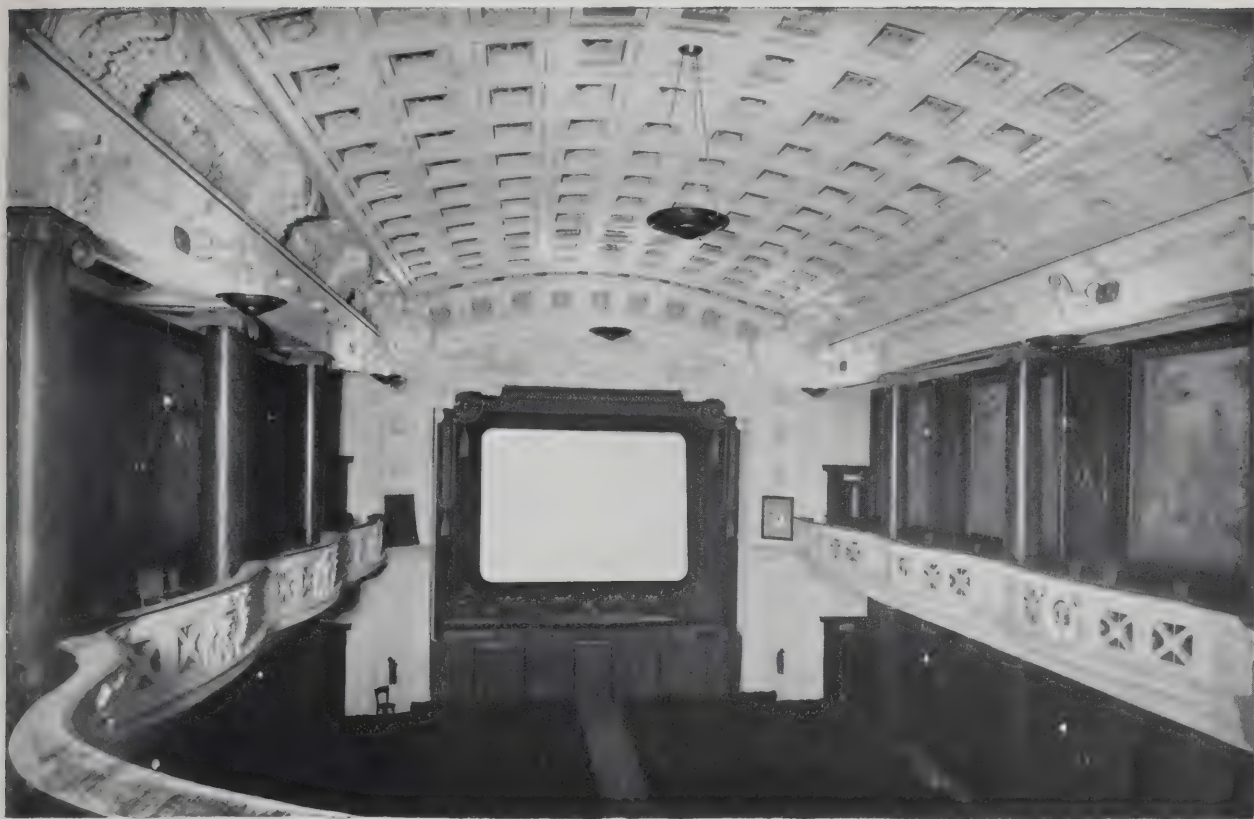


CURRENT ARCHITECTURE. LXXV.—THE NEW PICTURE HOUSE, PRINCES STREET, EDINBURGH: ENTRANCE FRONT.  
ATKINSON AND ALEXANDER, ARCHITECTS.









View of Interior from Gallery.



The Vestibule.

CURRENT ARCHITECTURE. LXXVI.—THE NEW PICTURE HOUSE, PRINCES STREET, EDINBURGH.  
ATKINSON AND ALEXANDER, ARCHITECTS.



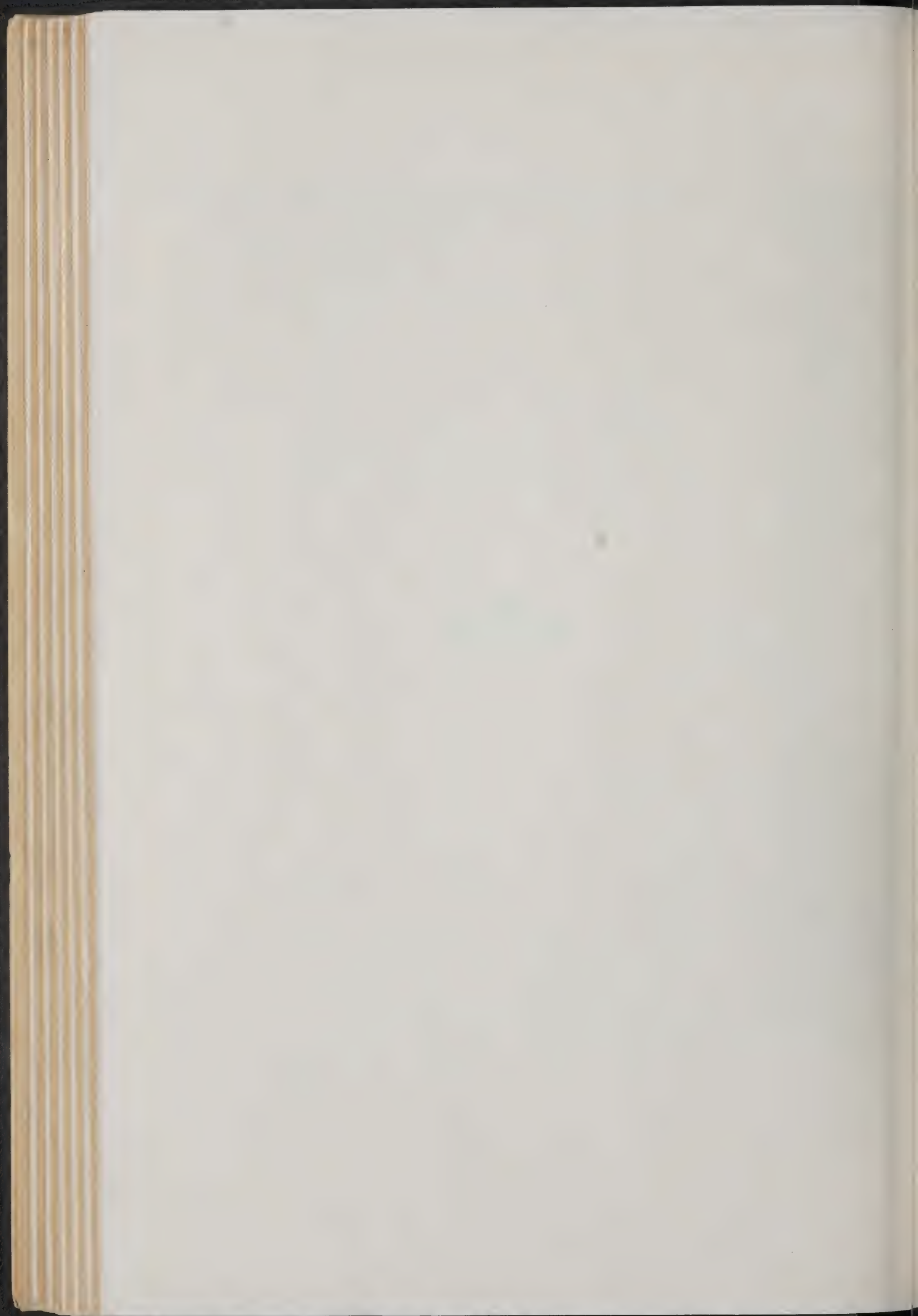






CURRENT ARCHITECTURE. LXXVII.—THE NEW PICTURE HOUSE, PRINCES STREET, EDINBURGH: DETAIL OF VESTIBULE.  
ATKINSON AND ALEXANDER, ARCHITECTS.







THE  
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Wednesday, August 12, 1914.

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No. 97.



(From Piranesi.)



# THE ARCHITECTS' & BUILDERS' JOURNAL.

AUGUST 12, 1914.

CAXTON HOUSE, WESTMINSTER.

VOLUME 40. No. 1023.

## EDITORIAL.

WE cannot all bear arms, as most of us would wish to do, in vindication of our country's honour, and in upholding its noble traditions as the inveterate foe of tyranny and oppression. But upon all non-combatants there devolves a duty no less patriotic, if less exciting. It is that of keeping one's head, and of going about one's business as coolly and rationally as in time of peace. As Lord Crewe said in the House of Lords immediately after the declaration of war, "There is no reason, so far as we are able to see, why the life of the nation should not pursue its normal course"; and, again, in the words of Lord Lansdowne, "It is the duty of every one of us, who has an opportunity of making his influence felt, to avoid any action which would have the effect of aggravating in any way the general alarm and uneasiness which must inevitably prevail at such a moment as this." But such nervousness never lasts long in this country. Georgian architecture, in its plenitude and its placid beauty, was conceived and consummated in the midst of almost constant warfare; and even while invasion by Bonaparte was an instant possibility building went steadily on.

That building will go on steadily now we are assured, not only by our past history, but by present indications. Our country is rising to the occasion in business as well as in war. Practising architects with whom we have discussed the matter are elated at the fine spirit their clients are showing. Building owners, they tell us, are not merely calm; they are confident to buoyancy. "Go on full speed ahead!" is the actual expression of more than one of them, and it may be taken as the *mot d'ordre*. It is the right patriotic spirit—best for ourselves and best for our country in its excellent moral and material effects.

Our Government, our public authorities, and our corporate institutions are inspired by the same level-headed calmness and confidence. They are all acting, as well as talking, with the determination that the professional and business interests of the country shall suffer no degradation. There are grim necessities of the situation that are being met with admirable wisdom and foresight. It is necessary to keep all the industries going as strongly as possible not merely as a matter of pure business, which is in itself a point of the highest importance to our country's welfare and integrity, but also as a means of providing against the excessive unemployment which, in war time, might develop into a serious internal danger, hampering the Government in its operations both at home and abroad. Steady employment and a fairly contented populace are among the strongest guarantees of that unanimity and solidarity which is essential in maintaining the *morale* of our fighting men. Good business is always good patriotism.

Grimmer still is the necessity to make adequate provision for the reception and care of the sick and wounded. This is a painful duty which will, we understand, be performed with all expedition and with the larger humanity which is a marked characteristic of our people, if not everywhere of our era. We have unofficial information that architects, working in harmony with the Government, are developing a scheme which will ensure the efficiency of the number of temporary hospitals that are to be immediately erected. It has been too common a practice, during former wars, and especially in our colonies, to "run-up" such buildings almost anywhere and almost independently of architectural supervision, with the result that many of them have been pesthouses rather than sanatoria. This ghastly error is not to be repeated. It is hoped and believed that the hospitals and other buildings for our soldiers and sailors will be in every instance soundly and substantially constructed, and that special care will be taken to render them thoroughly sanitary.

Government work alone will provide for a considerable time to come a large amount of employment for architects and builders, and will consume large quantities of materials—more especially, it may be assumed, those newer and lighter materials of construction which have already found favour for the construction of schools. Even if these were of obvious excellence, they would probably be superseded because of the possibility of a temporary shortage of timber. Sufficient labour should be available, and that the employers and workmen have brought to an end a dispute that has endured too long, but which may, after all, turn out to have been a blessing in disguise, because work will be immediately resumed upon the many unfinished buildings which can no longer be neglected, and making up the arrears caused by so many months of idleness will tide us over what might have been a period of depression which, attributed to the war, might have had a somewhat adverse influence on the optimistic and courageous spirit in which the crisis should be met and being faced.

Besides Government work, which, whether of permanent or emergency character, will no doubt go forward unceasingly and in full volume, there is sure to be a good deal of emergency work initiated, from patriotic motives, by local authorities and by voluntary associations in various parts of the country. Where local authorities show any tendency to be lax in these matters, or any disposition to abandon or postpone works of public utility, it will be a positive duty on the part of local associations of architects to use all their influence in favour of increased rather than of diminished building activity.



the plain duty of every professional man, whether he is a member of any organisation, to preach where the gospel of optimism: and of the man to call up his reserves of energy and courage and pursue his calling with unabated—nay, increased vigour and enterprise.

France emerged a stronger and a richer nation from the war of 1870, in which she had been crushed by overwhelming odds; and yet she paid with apparent ease, not really by dint of most strenuous effort, the enormous indemnity of 500 million francs exacted from her by a ruthless and an avaricious foe. Shall we have not the slightest reason to anticipate, therefore, show less recuperative power or less virility than *plomb*? The present firm tone and temper of the people, to say nothing of our magnificent traditions, make such a question utterly absurd. Although the war is barely more than a week old, we are already getting down to business with the firm purpose of carrying on life "pursue its normal course"—infusing into everything, however, something more than the normal courage and resolution. *Sursum corda!*

It is often useful, if sometimes surprising, to see things as others see us. With architects it is a fixed notion that much of the work that is theirs by right is done by the engineer. It now appears that engineers are equally sure that the architect is an inveterate poacher on their preserves. A correspondent of "The Times" declares that many millions of pounds' worth of engineering work is placed in the hands of architects, and he gives a long list, ranging from railway sidings and branch lines to gasworks, fireworks (so to speak—we mean "fire-works and hydrants"), telephones, and metal roofs, and a great deal of other work that has an unmistakeable engineering look, such as laundries and filter-works. These, he says, are only a few of the things that to his own personal knowledge, have been placed in the hands of architects during recent years. Precisely he means by all this is not very clear, but it is that an architect takes all these matters into consideration when they pertain to some general scheme of building operations. It is ridiculous to imagine that, for example, an architect would be called in to install a suction-gas plant *per se*, although, if he were designing a building in which a suction-gas plant came into consideration as a general scheme, he would naturally have some influence over its selection and position.

Engineers are contending that on every occasion on which engineering work is installed in a building a supervising engineer should be called in. This is a correct principle, but it should not be carried to absurd extremes. An architect experienced in designing a class of building in which a suction-gas plant is required would know precisely what to get and where to get it, and in that case a supervising engineer would not only be a superfluous luxury, but would probably come into more or less violent collision with the specialist who provided the plant. For really large and important engineering installations, the architect always calls in a superintending engineer; although he may be rather more chary of doing so since it was decided in the courts that, the superintending engineer notwithstanding, the architect is held responsible for the work. We thought—and said so in commenting upon the case—that this decision was rather hard on the architect; but, nevertheless, it establishes the claim of the architect of a building to supervise the work of the engineer, because it definitely throws the final responsibility upon the architect.

There is, we are perfectly certain, no general disposition on the part of architects to undertake any kind of work that is engineering pure and simple. But there are many "engineering" matters, such as the arrangements for lighting, ventilation, sanitation, and water-supply, in which the architect necessarily plays an important part, and he usually does it without exciting the slightest jealousy. We had thought architects modest and diffident to a fault; but, lo! here is their accuser saying that engineers "lack the 'pushfulness' of the architects, as we have lately realised with reference to St. Paul's Bridge, against which architects agitated individually and collectively through the R.I.B.A., in the Press, and in Parliament, until the Bill was recommitted." Of course, the word "pushfulness" is as vague as it is elegant; but we cannot admit that it is a fair description of the public-spirited action of the architects in saving London from the infliction of an engineer-designed bridge. As a mere manifestation of professional "pushfulness," the protest must have been utterly in vain. Its success implies its justification. Slight overlapping of architectural and engineering interests is inevitable; but observation convinces us that whereas the architect has a very clear recognition of his own limitations as an engineer, and acts accordingly, the engineer is singularly blind to his own deficiencies as an architect—and, alas! also acts accordingly.

## THE WAR AND THE BUILDING TRADE: REASSURING OUTLOOK.

The developments which have taken place within the last few days warrant a very hopeful outlook for the building trade. The reconciliation between masters and men first prepared the way for a general resumption of building work, and then the Government Bill for the immediate expenditure of the huge sum of £4,000,000 on housing in urban and rural districts. Moreover, with money plentiful and the Bank rate reduced almost to the normal, industry will spring ahead, and the resumption of work on the numerous large undertakings which were stopped during the building trade dispute will put the trade on a very satisfactory basis. This feeling of optimism is well sustained in the following official intimation which has been received from the First Commissioner of Works:

"It appears from various enquiries addressed to the Commissioners of Works that there exists some apprehension that unemployment should be increased in the building and other trades by suspension during the present crisis of building and engineering operations provided for in the estimates of the Office of Works recently approved by Parliament. It is, therefore, desirable to state publicly at once that it is the intention of the Commissioner of Works to proceed with all services in their charge, to employ as many men as possible to carry out such services, and to develop and expedite their building programme in any way practicable. As the Minister mainly responsible for Government building, the First Commissioner of Works would wish to take this opportunity of expressing his sincere belief that private individuals, companies, firms, and contractors will spare no effort to follow the policy of the Government in this matter, so far as circumstances admit."



## HERE AND THERE.

THE Beaux-Arts system has often been commended on the ground that it encourages the production of imaginative schemes, distinguished by a logicity of planning and showing evidence of an appreciation of the essentials of design. A large site, a large piece of paper, a clearness of draughtsmanship suggestive of surety and vigour, help to give the impression that there must be something bold and dashing about the architect, too, and his design must be marked by a greatness of idea. Undoubtedly, if the student deals with a big site, the chances are that he will be compelled to disregard small details and to concentrate his mind on the major elements of composition; but, while fully admitting this, it is possible to criticise the procedure adopted in the Beaux-Arts competitions.

But before the claim to logicity so often made on behalf of French architectural educationists can be accepted, it appears to me that they ought to draw a sharp distinction between the types of draughtsmanship which are respectively appropriate for the main grouping of a building and for the ornament by which it is embellished. The French, in their efforts to simplify their system of rendering, adopt a single method of representation, disregarding the fact that a duality of purpose in a drawing necessitates a duality of pictorial convention. In spite of the vast scale of these magnificent tableaux they are not big enough to show the decorative detail properly; on the other hand, they are much too big, if they are to be regarded as exercises in composition; in fact, they are of such dimensions that the chief object of the competition runs in great danger of being defeated. For presumably the adjudicators wished to test the students' capacity of uniting a variety of structures into an artistic whole. But it is a psychological fact that it is very difficult for anyone to compose such an artistic whole unless his eye can sum up the site at a glance. Thus, for the initial sketches small pieces of paper are needed, and even in the finished drawing, if one looks at the matter from the point of view of the town-planner who considers the broadest possible aspects of architecture, a double elephant sheet will in most instances meet all the requirements of the case. There is something to be said, therefore, for our own English system.

The subject for the Prix de Rome prize competition this year was a school destined for the training of officers of infantry and cavalry, and infantry of marine; the school was to be situated near the capital of a great state. Its offices and equipment were to satisfy all the modern requirements for the preparation of war and the protection of national territory. The schemes seemed grandiloquent. If vast domes and colonnades and every imposing architectural feature is used up in the design of a military school, it becomes difficult to give sufficient emphasis to buildings which have a still greater social importance. The competitors do not appear to have had in their minds the conception of a city, and this weakness appears to be shared by eminent French practitioners of to-day. In conversation with one such I was told that no French architects of repute would dream of designing flats or any of the ordinary buildings which line a street. It is beneath their dignity to design anything less than an "architectural monument."

The exhibition of Prix de Rome sculpture was in some ways an agreeable surprise. Having seen many books entitled "The Nude in the Salon," illustrative of nothing but female beauty, I had come to the conclusion that French artists of to-day have forgotten that passage in the Bible in which it is recorded that "Male

and female created He them." It rejoiced my anti-feminist soul to see sculptural figures displayed that were characterised by masculinity.

COSMOPOLITE

## CORRESPONDENCE.

*The Editors disclaim all responsibility for the statements made or expressed by correspondents, who are asked to be brief, and to write only of the paper. Every communication must bear the name and address of the sender.*

*Architectural Illustrations.*

To the Editors of THE ARCHITECTS' AND BUILDERS' JOURNAL.

SIRS,—In view of your remarks in your foreword to the new Journal of October 1, 1913—I refer particularly to the following:—"In its capacity as a purveyor of news and information the Journal is bound to publish a number of buildings which (as those responsible for its conduct are aware) do not reach any or permanent standard of architecture"; and in view of the fact that in some cases—as you point out to Mr. Adams—half-tone work actually improves original work. I am of the opinion that, in reproducing with excellent quality the type of work above referred to, you are very generous indeed. I therefore think Mr. Adams' suggestion is premature.

Liverpool, August 6.

O. NEWBOLD

To the Editors of THE ARCHITECTS' AND BUILDERS' JOURNAL.

SIRS,—About ten years ago the enlightened system of education brought me to earth. Two years ago your system of illustration assured me of my position in the architectural world. In these last few years I have made tremendous leaps and bounds.

But go easy with me!

I am yet a delicate subject requiring delicate handling.

Such a change as that suggested by Mr. Adams might give my admirers mental indigestion, and I would check my progress.

In a few more years I shall be strong enough to suggest such a change. But not now!

THE MONUMENTAL SPIRIT

*Linden House, Upper Mall, Hammersmith.*  
To the Editors of THE ARCHITECTS' AND BUILDERS' JOURNAL.

SIRS,—In the description of the illustration of a house in the issue of THE ARCHITECTS' AND BUILDERS' JOURNAL for July 22, 1914, "The house at Chiswick," should read "Upper Mall, Hammersmith."

Linden House is apparently referred to by Faulkner in the 1839 edition of "The History of Hammersmith" as follows: "By the improvements made in the house by the late George Dunnage, Esq., no portion of the original front remains. It now consists of a large centre with pediment, forming a pleasing specimen of an Italian villa."

Linden House and Grafton House adjoining, which is at the corner of Beaver Lane, are now used as boys' and girls' school.

London, W.

FRANCIS R. TAYLOR

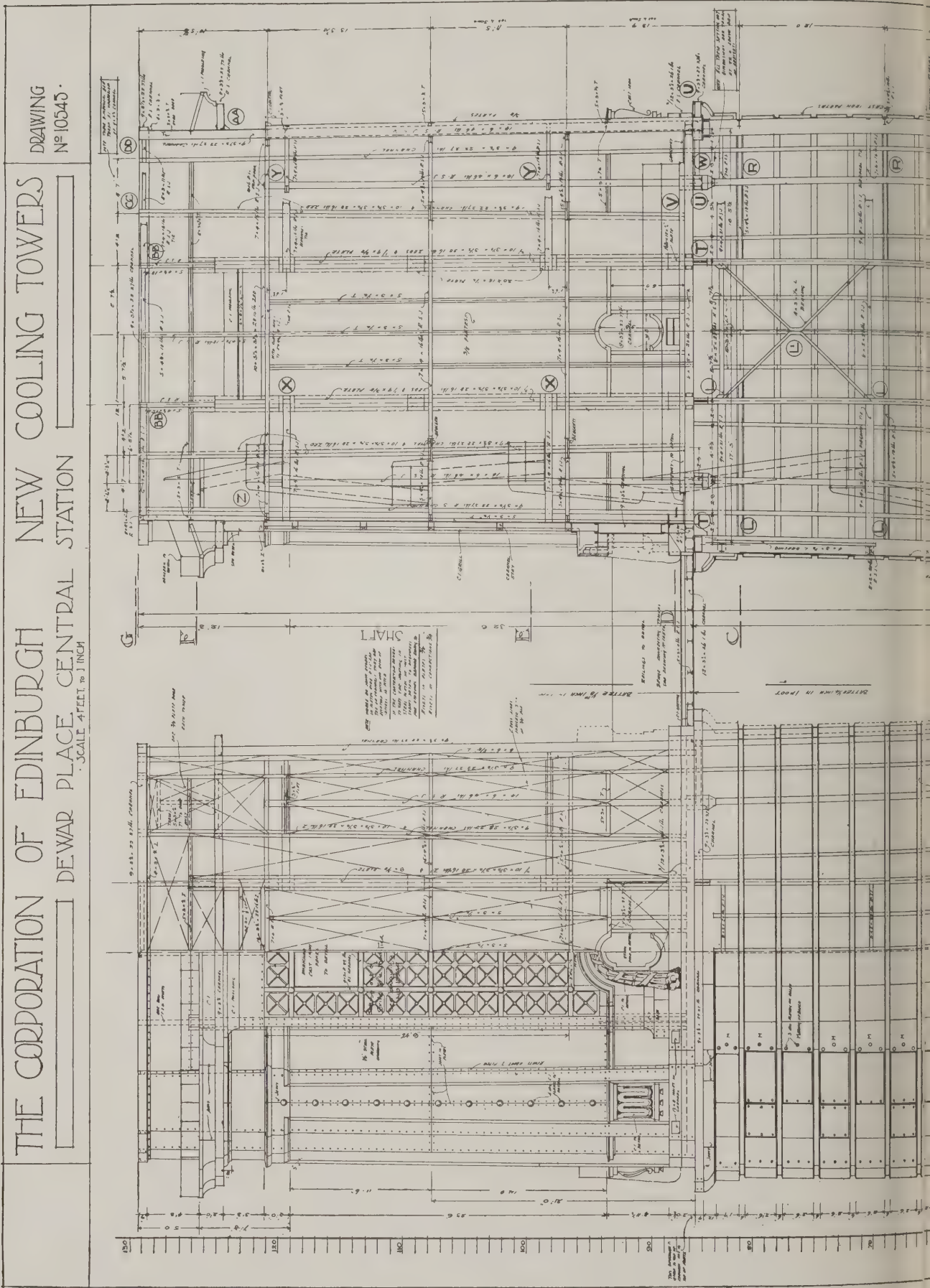
## PHOTOGRAPHIC AND SKETCHING COMPETITION.

IN consequence of the war, we have decided for the time being to discontinue our Photographic and Sketching Competition. With the Continent closed to holiday visitors, the competition was necessarily be deprived of a large part of its interest and in the circumstances its continuance would scarcely be justified.

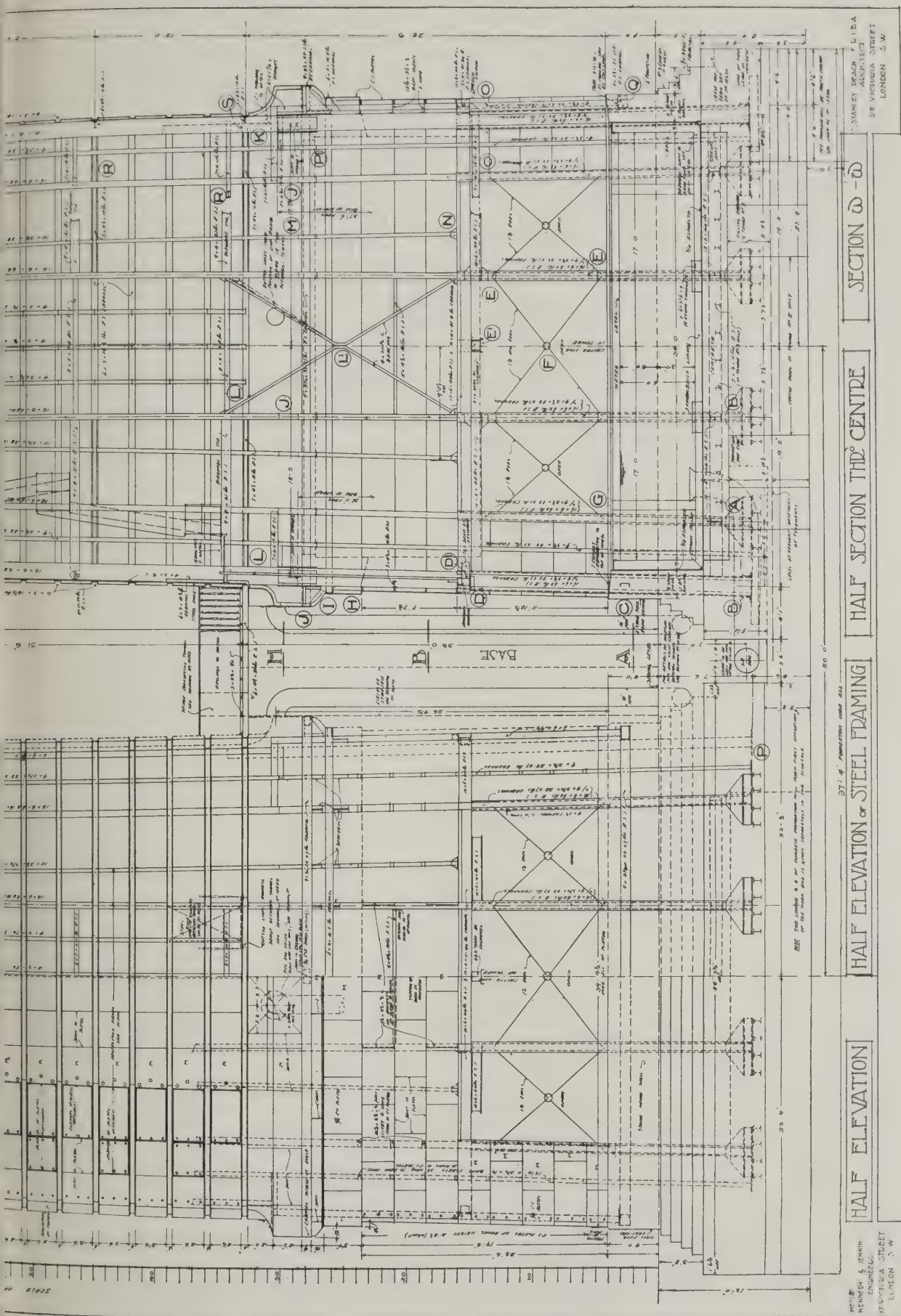


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WORKING DRAWINGS BY WELL-KNOWN ARCHITECTS (NEW SERIES). XXIII.—COOLING TOWERS, DEWAR PLACE CENTRAL STATION, EDINBURGH.  
C. STANLEY PEACH, F.R.I.B.A., ARCHITECT.



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## WAR AND THE BUILDING TRADE.

The general tenor of reports which we have received from our own special representatives in various parts of the kingdom with regard to the actual and future probable effects of the war on building industry is most reassuring. In London position is distinctly hopeful. The building trade, which has dragged on for so many weary months, it at an end, and by the time this issue is in the hands of the reader it is hoped that all the locked-out men will be back to work.

In time of grave national peril it is essential that the country should be free from all internal discord in order to present a united front to the common foe; there can be no doubt that the general outlook has been greatly improved as a result of the builders' mutual agreement to abandon their own individual hostilities. Men and men alike are to be congratulated on the wisdom which has prompted this decision.

The following statement was issued by the National Building Trades Federation on Thursday last: "At a conference this afternoon between the Administrative Committee of the National Federation of Building Trade Employers and the Head Executives of the General Unions still engaged in the London dispute, the following resolutions embodying terms of settlement were agreed to unanimously:—

In view of the present international crisis, it is decided by this meeting of the National Administrative Committee of the Employers' Federation and the Executives of the trade unions represented by the Operative Society of Painters, that the proposals last submitted by the L.M.B.A. to the several unions be accepted, provided that the clauses relating to disability and to foremen, as well as the rates of timbermen and alteration in overtime rates for journeymen, be submitted to the augmented National Arbitration Board for final decision. Signed, W. H. Jackson (Chairman and President of the National Building Trades Federation). Charles Jackson (on behalf of Trade Union Representatives).

That in view of the explanation made by Mr. Jackson at this meeting, the lock-out notice sent to the Operative Society be withdrawn.

In view of the present international crisis, this Conference deplores the fact that certain disputes exist in the building trade, and earnestly trusts that steps be immediately taken to settle all such disputes."

It is now hoped that work will at once be resumed on the majority of the big jobs which have been held up by the lock-out. Government work is certain to go on now that the first shock is over, a reaction has set in, confidence is being rapidly restored, and building owners are bound to realise the necessity for completing works which are already in progress.

Every eminent architect, in conversation with the writer, expressed the opinion that, although a fall in building was only to be expected, there was no cause for pessimism. "We went through precisely the same tribulation," he said, "at the time of the African War. I myself, in those first dark days, thought that everything was coming to an end, as far as this country was concerned. But, of course, I was wrong. The country stood the shock with wonderful steadiness. Though shifted from her axis, she speedily settled down, and before long was completely accustomed herself to the altered conditions, and so it will be, I truly believe, in the present case."

Therefore I would say, go on with your work with courage, and with the conviction that all will be well. Architects can do good service by encouraging their clients to put in hand any small alterations or improvements that happen to be necessary. There must be a large amount of such work waiting to

be done, and it will all help to get us over the crisis with which we are faced."

It is certain that building in some respects must actually be stimulated by the war. With the tremendous extension of our regular army, greatly increased barrack accommodation will become necessary; and hospitals will also have to be erected for the reception of the wounded men who will shortly be returning from the seat of war. It is obvious, therefore, that the building trade is by no means in the parlous state that was at first anticipated. Indeed, it may be said without exaggeration that, in comparison with many other trades, building is favourably situated.

## THE PLATES.

*Edinburgh Corporation Cooling Towers.*

IN the monthly "Concrete and Steel Section" of this JOURNAL, what, for want of a better expression, may be called the more practical aspects of construction are allowed free scope; and Mr. Stanley Peach has been so remarkably successful in giving architectural expression to most unpromising material that we have no hesitation in including illustrations of his cooling towers at Edinburgh among our plates. A description and further illustrations of the towers appear in the article beginning on p. 120. A working drawing occupies pp. 114 and 115, which, being unbacked, are detachable as a plate.

*Louis XIV. Vase, Versailles.*

Louis-Quatorze character in one of its most characteristic, but perhaps not most admirable, phases, is seen in the rather incongruous association of classicality, modernity, and decidedly Franco-Egyptian antiquity. It is an audacious scheme of decoration, but is consummately graceful, and the modelling of the figures—especially of those in which portraiture is involved—is full of character. Apart from purism, this vase is one of the most successful of the series.

*Brampton House, Church Street, Chiswick.*

A dignified house in a delightful setting. The photograph suggests a beautiful village street somewhere in the depths of the country, and it is difficult to realise that Chiswick is only a few miles from the heart of London.

*The Old and the New Royal Palace, Brussels.*

Of intensely topical interest are the illustrations given in this plate, and in the article beginning on p. 118, of typical Belgian buildings, not only because, alas! they are for the moment subjected to the hazards of war, but because of their intrinsic interest as examples of the architectural genius of our gallant allies.

*Cottages at Burton Manor Estate, Neston, Cheshire.*

These cottages, which were built at a cost of something like £420, are constructed of whitewashed bricks, and the roofs are covered with pantiles. It was desirable to keep the buildings low, as they are placed on a picturesque site above the level of the village.

*Cottingham's Designs.*

In this plate of designs by Cottingham, the drawings would seem to have been thrown off with an almost careless exuberance, and with a lightness of touch that even the French might envy. Here, as in other examples, there is a strong suggestion that Cottingham's classical feeling came to him via France, and is none the worse for the overland route. With every fresh example it becomes more strikingly evident that these plates, when collected into a portfolio, will form a splendid *Liber Studiorum* for art-craftsmen and artificers as well as for architects.



## THE ARCHITECTURE OF BRUSSELS.

**B**ELGIUM'S heroic resistance to the advance of the German forces has excited the utmost admiration in this country; and now all eyes are turned towards Brussels, which is the next objective of the Germans on Belgian soil. Its chief buildings therefore assume a special interest.

Brussels is remembered by the average Englishman chiefly as the town from which, after a famous ball on a June night in 1815, Wellington and his men set out for Quatre Bras and Waterloo, to crush the man who would dominate Europe; and now, by a curious coincidence, the armed forces of England, just a century later, are again to engage in crushing another would-be world-conqueror within a comparatively short distance of the same historic ground.

It was not until after the Revolution of 1830 that Brussels became the capital of Belgium; and it was not until much later in the nineteenth century that it grew to be one of the most modern and magnificent cities of Europe. In many respects it can at the present time bear comparison with Paris. Much of the modern splendour of Brussels is due to Leopold II., late King of the Belgians, who was a mighty builder. The method by which he gained his great wealth was perhaps rather that of a financier than a king, but there can be no doubt that his method of spending was thoroughly royal.

In a country which is considerably more democratic than our own, and in which the Crown has no buttress of ancient tradition and unspoken prestige, the only means for a monarch to achieve his ambitions is by means of wealth. Though Leopold II. was intent upon beautifying Brussels his work had not the backing of the nation at large; there was a feeling abroad that here was a king (whose office had been denied all real power) despotically building palaces, museums, triumphal arches, and even remodelling the face of the capital itself; and all was possible and within constitutional limits because he happened to own vast personal wealth and chose to spend it in this way.

Brussels, however, is left infinitely richer as a result of his constructive passion. It was during his long

reign that one of the greatest works of art of modern Europe—the Palais de Justice, 1866-83—was built, projects with which he was intimately and financially connected belonging to the last ten or twelve years of his life, during which time the face of Brussels was greatly changed.

The first piece of achieved building which attracts the most personal, and the one which attracted the most furious opposition—the new Royal Palace (illustrated on the Monumental Architecture page of this issue). This part of Brussels, on the plateau overlooking the old town, was laid out by the architect Guimard, about the year 1775, and included the Place Royale, Rue Royale, and the Parc (designed by Zinner). At the northern end of the Parc Guimard built the Palais de la Nation (now the Chamber of Representatives), which was burnt down in 1820 and reconstructed by Van der Straeten. Opposite the pediment of this building, carrying on the axis of the central avenue of the Parc, leads a road, and on either side of this that the Royal Palace was placed. This gave an admirable opportunity for a piece of logical town-planning, and accordingly Van der Straeten, in 1820, built a central wing connecting these two portions and closing the central vista of the Parc; a portico was subsequently added by Suys. The palace possessed slender architectural distinction; the bowed front of the Parc left an inadequate space for a ceremonial forecourt; Leopold II. removed both, by the hand of his architect, the late M. Maquet. The two extreme wings, one of them forming the left-hand entrance to the Place Royale, have been left as Guimard designed them; connected to them by small guard-houses, and set back within separate arcades is the new palace, treated in a very sober and severe manner. The photograph which is here reproduced, taken from the roof of the Palais des Académies, gives a somewhat better impression than the view, owing to the fact that the ground, slightly sloping to the east, produces an effect of squatness. By the drawing a straight line across from the outer angles of Guimard's pavilions, a forecourt was enclosed, treated as a sunk garden, in three parts; but more than



THE CONGO MUSEUM, BRUSSELS. CH. GIRAULT, ARCHITECT.





ARC DU CINQUANTENAIRE, BRUSSELS. CH. GIRAULT, ARCHITECT.

desired for the massing of crowds on great squares. Accordingly M. Maquet cut off the bowed ends of the Parc, leaving the two corner gateways, and indicate the angle of the bow, and re-erecting a central one. This curtailment of the Parc of the 1880 raised an outcry of amazing fierceness. But it was confessed that the alteration can now hardly be regretted, and there is the gain of the open space, especially as it is crossed by the tram lines.

Originally connected with the new palace were the schemes for remodelling areas on both sides of the Place Royale. On the upper side the narrow garden at the back of the palace garden were to be cleared away and a straight connection called "la nouvelle Rue Bréderode" formed between the Place Royale and the Boulevards. The Rue de Namür, a section of the old "chaussée" road from Ghent to Cologne, was preserved with its historic windings; but many new buildings (never got beyond the design stage), were to face the Rue de Namür, including the Ministries of the Congo and the Colonies. This scheme has remained a "project" on paper and it is likely to remain so.

Arc du Cinquantenaire was one of Leopold's attempts to add to the beauty of Brussels by creating vistas to lead the eye from the centre of the city towards some distant monument. The street of the Rue de la Loi was there already—the uninteresting Rue de la Loi which carried on the axis of the north side of the city in Guimard's plan. In 1880 an exhibition in connection with the jubilee of the kingdom of Belgium was held at the end of the Rue de la Loi, and a small park at the end of the Rue de la Loi, and two great galleries were left standing, connected by a semicircular arcade of Ionic columns on a raised pier pierced by windows. Leopold conceived the idea of placing a triumphal arch in the middle of the Rue de la Loi, and so converting an ordinary street into a monumental vista, the rise in the ground adding greatly to the possibilities of the effect.

Unfortunately, after considering the idea for many years, Leopold suddenly decided, eighteen months beforehand, to have it built for the seventy-fifth anniversary in 1905. He chose as architect for this work—which required more aplomb than M. Maquet, the serious Walloon, was master of—M. Charles Girault, who had already built the Petit Palais in the Champs Elysées at Paris. But in spite of the aplomb and dash which Girault put into it, the triple arch has a feeling of intellectual exhaustion about it. It appears to be an instance of the commonplaces of stylistic utterance which every artist can summon up without making an inroad into his emotional nature. In judging this arch we must consider it as a piece of improvisation. The main idea of three equal arches is fine, the detail is of usual French thoroughness, but there is no true articulation between the base of the quadriga and the arcade: and the end features, treated simply with coupled columns carrying a finial, taken from a votive altar, are void of true significance. The numerous groups of bronze attempt to hide up this exhaustion by means of floriture, but they merely emphasise it; they are too small, and there are too many of them to add a solid enrichment to the arch, nor, with the exception of the quadriga, are they interesting enough to excite admiration for themselves.

The new Avenue de Tervueren carries on the axis of the Rue de la Loi on the farther side of the arch as far as a circus, where it is crossed by the new circumferential Boulevard Militaire: from this point the avenue curves to the left, the tram passing through a delightful corner of the Forêt de Soignes, to the old park of Tervueren. Here, facing a lake and set in magnificent trees, Leopold placed his Congo Museum, of which M. Girault was again the architect. It was completed in 1907, and is a much more successful piece of work than the arch. The building is one storey high, surrounding a courtyard; it is treated very simply with a Doric order.



# CONCRETE AND STEEL SECTION.

(MONTHLY.)

## THE EDINBURGH CORPORATION COOLING TOWERS.

The cooling towers which the Corporation of Edinburgh have erected at Dewar Place, near the Princes Street Railway Station, are required in connection with the condensing plant of the electricity generating station, and are used to cool some 210,000 gallons of water per hour from 105 deg. F. to 80 deg. F., when the temperature of the air is 50 deg. F.

The proposal of the Corporation to erect these towers met with some opposition on æsthetic grounds, as it was thought that the ordinary wooden structure used for this purpose would prove an eyesore to the

locality. It was therefore decided that in the design an attempt should be made to treat the towers architecturally.

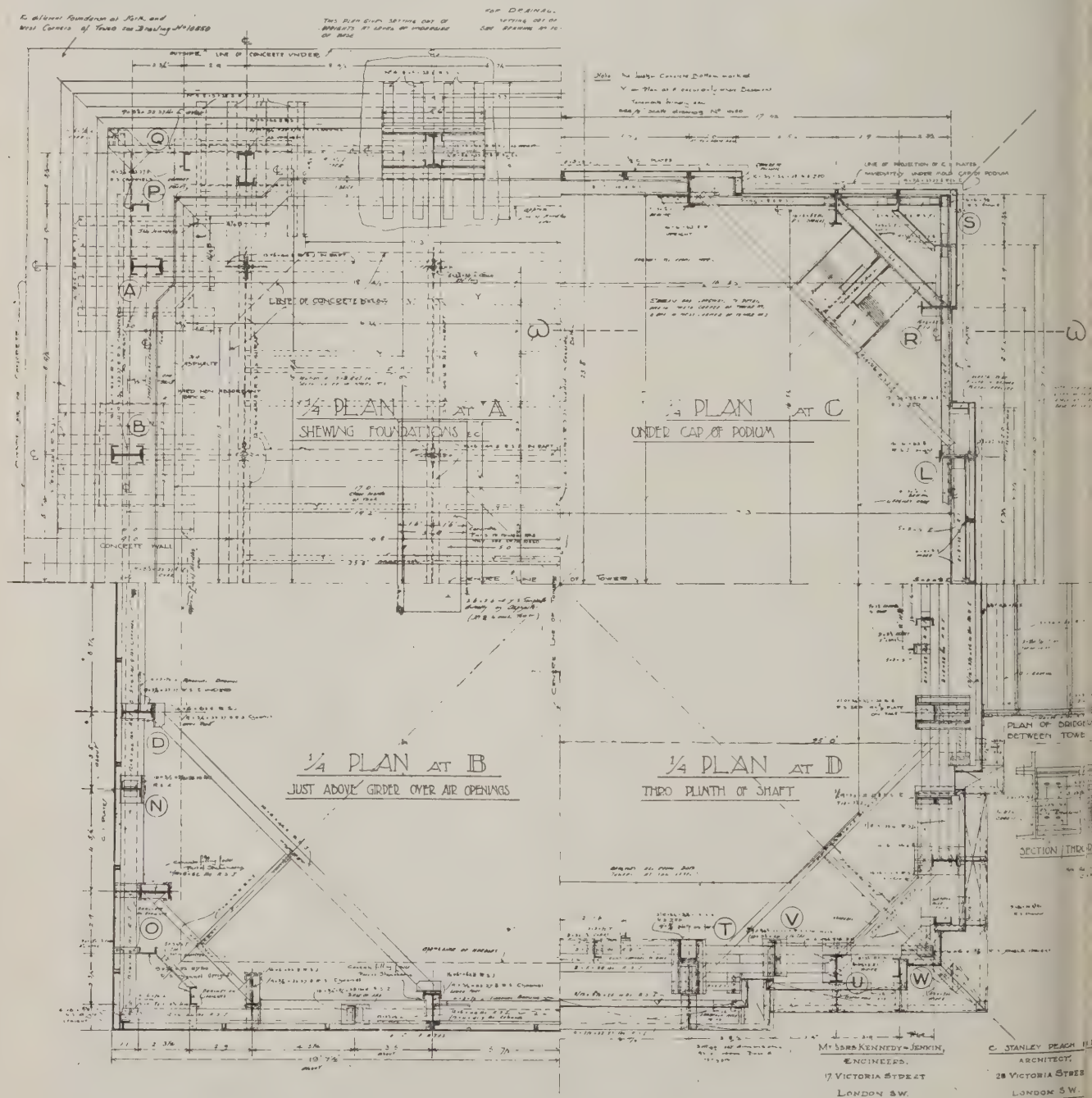
A combination of cast-iron plates, rolled steel joists and channels, was considered the most suitable method of construction, having regard to the permissible weight on the site and the purpose for which the towers were required. Ordinary standard sections have been used, and the resulting effect is mainly due to the way in which the sections have been arranged with the best and most accessible jointing. Each tower is about 130 ft. high above ground level, and approximately 40 ft. square at the base.

The base is of concrete and encased in concrete. The centre portion of the shaft

is constructed of cast-iron plates joined by horizontal steel channels which, in addition to joining the plates, bind together the supporting framework of the tower. There is a connecting gallery at about one-third of the height for access to the towers. Details of this very intricate piece of constructive work are shown in the working drawing published in this issue.

The principal contractors were Messrs. Motherwell Bridge Co., of Motherwell, N.B., who manufactured all the steelwork and erected the towers. The cast-iron plates were supplied by the Carron Company, Glasgow.

Messrs. G. and R. Cousin, of Edinburgh, were sub-contractors for masonry work, and Messrs. Kennedy and Jenkin, of Glasgow, were responsible for the design of the towers.



COOLING TOWERS, DEWAR PLACE, EDINBURGH: PLAN. C. STANLEY PEACH, F.R.I.B.A., ARCHITECT.

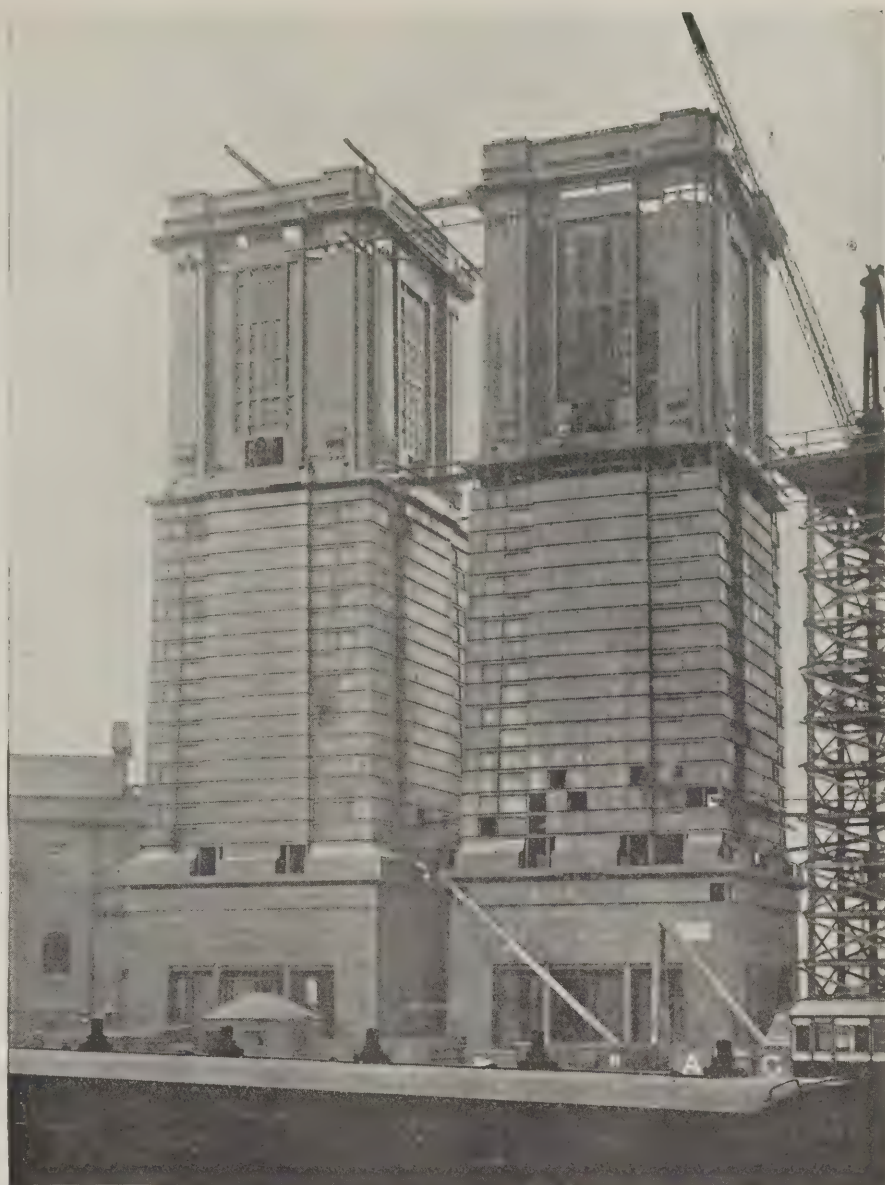


t, Westminster, were the consultants for the whole scheme, and Stanley Peach, F.R.I.B.A., of 28 Victoria Street, Westminster, was the architect, who is to be congratulated for having in metal a design which, while fulfilling all the necessary practical requirements, possesses considerable architectural interest.

## ARCHITECTURAL TREATMENT OF REINFORCED CONCRETE.

The historic laws of the architectural treatment of the older materials, like stone, writes Mr. William Black in the issue of "Kahncrete Engineering," a publicity magazine issued by the Trussed Concrete Steel Co., 150, Abchurch Lane, London, E.C. 4, are clear, and have a fairly universal application. These laws and standards have gradually evolved from early experiments. It is recognised that whatever treatment these older materials should be respected, so that, for example, the forms to which they are moulded shall differ from those proper for stone—that a stone cornice shall differ from a timber cornice in proportion to the ease of working of the one with the other. Equally fair, Mr. Black continues, to apply such a principle should also be the treatment of reinforced concrete.

There is a considerable agreement among architects that the Ruskinian principle is an eminently sound one, that the most likely to be obtained by the expression of material. Is the principle applicable to reinforced concrete? Should this material be frankly treated to the public eye, or ought it to be merely as a structural material, hidden beneath the flesh, so to speak, by some other finer covering? The question indicates the division of opinion among architects. There are those who regard reinforced concrete nothing but the expression of a structural framework, a concrete-like steel. It is pointed out that concrete lacks some of the qualities of stone—it has little beauty of its own warmth and interest of colour. If this view is taken—and it is a view which claims to be supported by some authority, for the Colosseum itself is a concrete structure with a stone facing—if this view is taken, the treatment of a reinforced concrete structure is merely a variation on ordinary architectural methods, and the examples are supplied by following the practice. As an example of a treatment, so to speak, the Atlas Building, Leeds (architects, Messrs. Bulmer, F.F.R.I.B.A.), is cited by Mr. Black. This building is built throughout of reinforced concrete in the Kahn system, but the external walls are composed of Burmantoed "Marmo" of about 1½-in. thickness, set into, and homogeneous with, the concrete wall. The effect is good, and window reveal is obtained by a fluted moulding round the opening. It is decided to cover the concrete with no more effective treatment than this, but it is, of course, a treatment which is equally applicable to a reinforced building. The Wesleyan Central Hall, Westminster, is the classical example of a building where reinforced concrete has



COOLING TOWERS, DEWAR PLACE, EDINBURGH. C. STANLEY PEACH, F.R.I.B.A., ARCHITECT.

been largely employed for the internal structural work, the architects adopting for the external walling the monumental mass of stone masonry with all its wealth of carved detail. It is idle to pretend that for great public edifices anything better than stone can be used; all the suggestions of traditional mouldings and ornamentation can be infused into it. Time deals kindly with it and adds a beauty of its own which concrete can never quite hope to attain.

In the writer's opinion, however, reinforced concrete having the quality of permanence, and therefore having no essential need for covering, the proper treatment lies in the frank expression of the material. Ruskin's principle should be respected, and no attempt should be made to hide the individual character of the reinforced concrete behind the veneer of an incongruous surfacing. This is not to say that surface treatment of any kind is not permissible. In fact some modification of the essential hardness of the concrete surface as it comes from the sheeting is very desirable and can be done in many ways. One method is to work the gravel aggregate to the face of the wall, and after the sheeting has been removed, wash the surface with a solution of muriatic acid, in order to eat back the mortar matrix and leave the pebbles of the

concrete exposed. This is dealing with the concrete surface in a perfectly honest way, and if well done is very effective.

Rough-cast or pebble dashing may be resorted to for panels, but not in the case of a large area, except at the risk of producing merely the "pretty" effect to be seen in a modern garden-city cottage. But good surface effects can be well obtained by contrasting the grey monotone of the concrete with warmer colours—by polychromatic decoration. How to introduce colour judiciously is, in fact, the main problem of the architectural treatment of concrete surfaces. Concrete, being run in moulds, is obviously a material which suggests that embedded ornament is a proper treatment. Mosaic, therefore, seems a not inappropriate means of surface decoration, in bands, in small panels, and in repeating ornament. Marble bands round window and door openings with visible metal fastenings have been suggested, and coloured terra cotta and faience in mouldings and friezes are legitimate means of introducing colour. Tiles of proper manufacture in panel work are also a means which may fairly be adopted.

As regards those buildings for whose construction reinforced concrete is used primarily because it offers great economical advantages, their nature is such that the



architect should not attempt to ornament them in an unnecessary manner. Warehouses and mills, grain silos and water towers, are merely means to a commercial end, and the necessary economy to be practised in these designs puts out of the question any refinements of decoration, but even those structures should be amenable to the laws of architectural propriety.

The water tower at York, and the design submitted by the Trussed Concrete Steel Co. for a bridge at Newport, Mon., are cited as further excellent examples of the architectural treatment of reinforced concrete.

In the design of reinforced concrete generally, the qualities desired are simplicity and breadth of treatment, and these are best obtained by a dignified severity of horizontal and vertical lines.

Architectural wisdom, in the writer's view, lies in a recognition of the fact that, while moulding into great variety of form is a simple and tempting process in reinforced concrete, the straight lines of the beam and column are the appropriate mode of expression with this material. The arch should be rigidly eschewed except in bridge work, where it is a constructional part of the design. Mouldings should, in the writer's opinion, be bold and simple, and should never have the subtlety or richness of stone or timber mouldings. Architraves should, as a rule, consist of flat bands, and if it is desired to enrich them, the enrichment should consist of some kind of planted ornament.

Large unrelieved surfaces of concrete are a mistake; they should be broken up into panels in some way by means of pilasters and string cornices. In masonry, large undecorated surfaces of dressed ashlar have an excellent effect, because the texture of stonework is always interesting, but for concrete no such claim is admissible.

### RADIAL GIRDERS IN THEATRE CONSTRUCTION.

The Empress Theatre in Portland, Oregon, of the balcony of which details are shown in the accompanying illustrations, is a steel-frame structure with a balcony floor extending 98 ft. across the full width of the building and inclined at a pitch of about twenty-four vertical to thirty-one horizontal. The radial floor girders parallel to the floor surface are comparatively long and shallow, and are fulcrumed on a heavy transverse truss, beyond which their cantilever bent ends project and are connected to the fascia girders, which are segments of a circular arc.

All the main radial girders pass through the web of the fulcrum truss T and are supported by lower flange bearings on oblique seats made by bent plates with their outstanding flanges supported on the ends of vertical reinforcement angles. The top flanges also have bent-plate connections riveted to the fulcrum truss. The cantilever girders A, E and C have their rear ends connected by hitch angles to interior columns, which also support the gallery floors. The other cantilevers, B and D, are supported and anchored at the upper ends by connections to horizontal transverse girders.

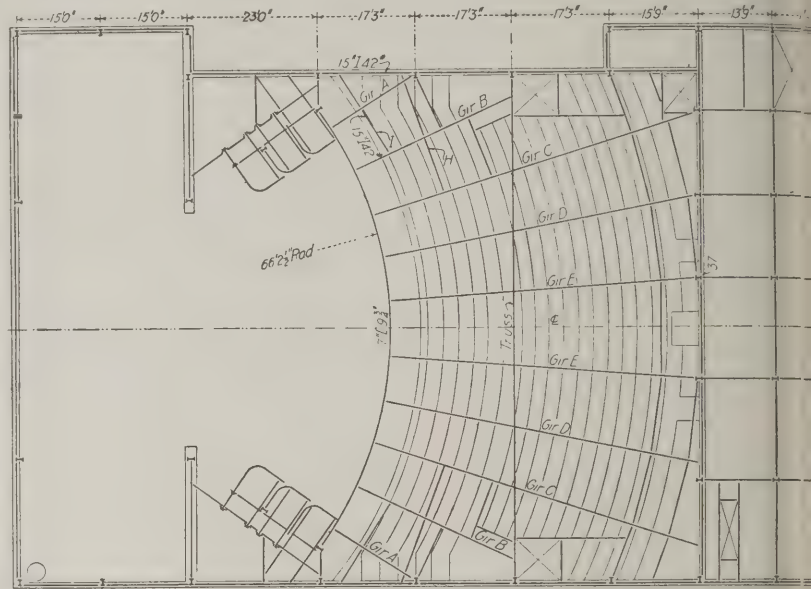
The lower ends of the cantilevers are sharply bent upward just beyond the fulcrum truss, and short horizontal arms are spliced to their extremities to connect with the fascia girders. The full-length flange angles are bent to conform to the shape of the girders, and the web is stiffened by

pairs of vertical angles skewed with the inclined flanges and dividing the girder webs into oblique parallelograms.

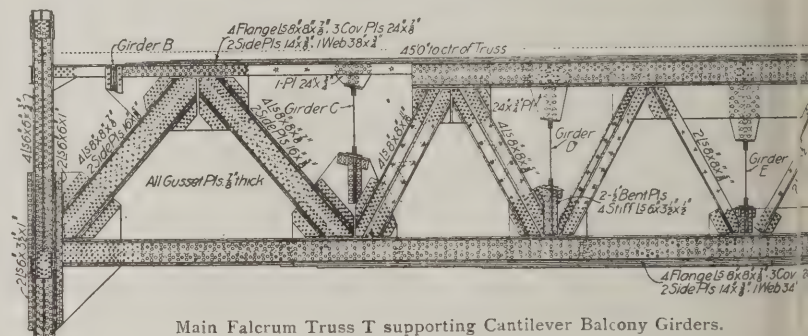
At the sides of the auditorium short cantilever girders, B, are anchored at their upper ends to the fulcrum truss T, and are fulcrumed to horizontal I-beams, H, supported at one end on the wall girders and at the other end on main cantilever girders, C. In these cases the fulcrum supports consist of heavy yokes with verti-

cal angles field-riveted to special of the girder webs projecting at top flanges and field-riveted to wall or extensions of hitch angles and of the transverse beams.

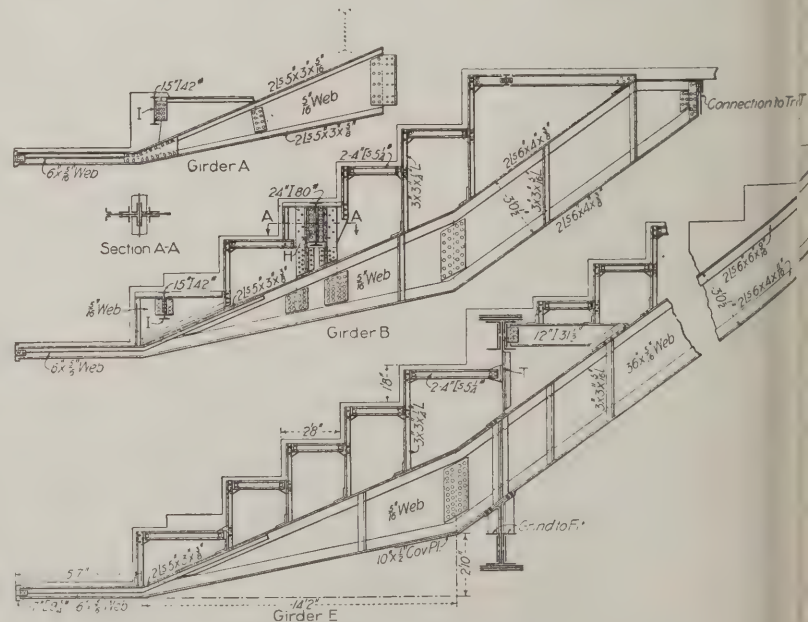
Very short cantilever girders, A, end of the fascia girders, rest at extremities of the main cantilever and are anchored at their upper directly to the wall columns, centre sections of the web plat-



Plan of Balcony Framing and Notation of Girders.



Main Fulcrum Truss T supporting Cantilever Balcony Girders.



Typical Cantilever Girders with Solid Webs supporting Balcony Floor.



top flanges and engage hitch  
eld-riveted to the webs of short  
beams, I, above the cantilevers,  
carried at one end by the wall  
and at the opposite end by the  
cantilever girders B. This rather  
system of support provides a  
angement of girders for a some-  
orate system of reaction.

crum truss T extends across the  
of the auditorium to support the  
nd the grand foyer floor beams.  
ed by the wall columns, which  
ial sections of web plates extend-  
d the column flanges and field-  
between the elements of the lower  
l inclined post of the truss, thus  
a stiff connection integral with  
bers. The lower edges of these  
n plates are ground to the shape  
ge to facilitate their entrance  
chord and diagonal elements.  
set plates at lower-chord panel  
extended high enough to receive  
upper edges inclined seats for the  
cantilever girders. Corresponding  
gussets are provided vertically  
em for top-flange connections of

uss weighed about 55 tons and  
ed at the site on falsework, the  
ng driven by pneumatic hammers.  
ilever girders were shipped whole  
bridge shops and had a maximum  
f eight tons. The total weight  
ructural steel in the building is

## LEGAL REPORTS.

### Point under the Workmen's Compensation Act.

*King v. J. Mowlem and Co.*  
Court of Appeal. Before Lords Justices  
Kennedy, and Phillimore.

Court heard the appeal of the  
in the case of *Codling v. J. and Co.*, which was from a judg-  
Mr. Justice Atkin, sitting without  
The plaintiff in the action was  
setta Codling, and the defendants  
well-known contractors. Plaintiff's  
was killed while in the employ-  
the defendants. A claim was  
behalf of the six children of the  
under the Workmen's Compensa-  
and £300 was paid into Court.  
ow did not at first claim anything  
elf, but subsequently she claimed  
against the defendants under  
mpbell's Act, alleging that in con-  
of the defendants' negligence  
band's earnings were lost and that  
averaged £3 15s. per week. The  
nts said the widow was cognisant  
othing that took place, that her  
was barred and was not maintain-  
reason of the provisions of the  
Master in Chambers ordered the  
law to be argued by a judge, viz.,  
the action was barred and not  
nable under Section 1, Sub-section  
the Workmen's Compensation Act.  
When the matter came before Mr.  
Atkin he held that the action was  
tainable.

arguments, Lord Justice Buckley  
appeal must be dismissed. The  
was a party to the action under  
orkmen's Compensation Act, and  
ered her claim in favour of her  
1. She agreed to their having  
uld otherwise have been hers. She  
de her election and must abide by  
e judge was quite right in his deci-

other Lords Justices concurred and  
eal was dismissed, with costs.

### Repair of Highway : Responsibility for "Making Good."

*Brame and Another v. Commercial Gas Company.*

July 22. King's Bench Division. Before Justices  
Horridge and Lush.

This was an appeal by the defendants  
from a decision of Judge Smyly, of the  
Bow County Court.

Mr. Macmorran, K.C., and Mr. J. D.  
Cassels appeared for the appellants, and  
Mr. McCall, K.C., and Mr. Abinger for  
the respondents.

Mr. Macmorran said his clients had  
been engaged in laying new pipes at  
Canton Street, Poplar. Under the Gas  
Works Act the appellants were bound to  
reinstate the pavements on completion of  
the work. Under Section 114, however,  
of the Metropolis Management Act of 1855,  
there was a section which enabled the  
Borough Council of the district in which  
the relaying of gas pipes was being carried  
out to do the necessary work of reinstating  
the pavement and charge the Gas Com-  
pany with the cost. On August 5 last the  
plaintiff, Mrs. Brame, owing to the defec-  
tive condition of the pavement on which  
she was walking, tripped and fell, and the  
question the Court had to decide was who  
was responsible for the condition of that  
part of the pavement at the time the acci-  
dent occurred. The work was begun on  
July 23 and finished on August 1. It was  
done in sections, and as each section was  
completed notice was sent to the Borough  
Council of such completion, and they sent  
their men to carry out the work of perma-  
nently relaying the pavement. The work-  
men of the Gas Company and of the  
Borough Council did not keep pace in the  
execution of their several duties as they  
had not the same number of men. The  
appellants gave notice to the Borough  
Council on July 29 that the work of re-  
laying the pavement was ready for them  
to do, and the Borough Council at once  
issued an order to their inspector to do it.  
Counsel argued that, as soon as ever the  
Borough Council had resolved to do the  
work of relaying the pavement the respon-  
sibility for its condition became the respon-  
sibility of the Council, and the Gas Com-  
pany had neither power nor right to do  
anything further at all.

Mr. McCall, for the respondents, con-  
tended that the question was purely a ques-  
tion of fact and that the finding of the  
County Court Judge was conclusive. He  
submitted that there was no substance  
whatever in the appeal and that there  
could be no appeal on a question of fact.

Mr. Justice Horridge, in giving judg-  
ment, said that under the Gas Works Act,  
had it stood alone, there would have been  
no doubt that the obligation was thrown  
upon the appellants of making good the  
highway. There was, however, a subse-  
quent Act, the Metropolis Management  
Act, and counsel for the appellants had  
argued that under Section 114 of that Act  
the liability of the Gas Company to per-  
form their duties had been transferred to  
the local authority directly that authority  
decided to take upon themselves the work  
of making good the highway. His lordship  
read the section in question and said that  
he did not think that the mere passing of a  
resolution to do the work would relieve the  
Gas Company of its responsibility until the  
work had been handed over to the repre-  
sentative of the local authority. In his  
opinion the question was purely a ques-  
tion of fact and the case ought to be dis-  
posed of on that footing. The County  
Court Judge was right, and the appeal  
must be dismissed, with costs.

Mr. Justice Lush agreed.

The appeal was accordingly dismissed,  
with costs.

Leave to appeal was refused.

There was another case in the list of  
*Clarke and Another v. the same defend-*  
dants, which follow the result of the fore-  
going case.

### MANCHESTER SOCIETY OF ARCHITECTS.

Members of the Manchester Society of  
Architects visited Birmingham on Satur-  
day, July 25, and were most hospitably en-  
tertained by the Birmingham Architectural  
Association, which had arranged an inter-  
esting programme. Aston Hall and St.  
Philip's Church, were visited, but most of  
the time was spent in seeing recent build-  
ings. Extremely good work is being  
done by Birmingham architects to-day, and  
few of the provincial centres could point to  
such a high level of ecclesiastical and  
domestic buildings, all bearing distinctly  
local characteristics. The names Bidlake,  
Dixon, Ball, Ballinar, and Buckland are  
well known, and to these should be added  
those of younger men who are keeping up  
the high standard set by the older school.  
The activity in church building is no doubt  
largely due to the energy and sympathy of  
Bishop Gore, the first Bishop of Birming-  
ham. Mr. Bidlake's two churches, St.  
Oswald's and St. Agatha's, show his  
mastery in making Gothic building really  
vital, and the latter is certainly one of the  
stateliest and most satisfying of our  
modern churches in the Mediæval style.

The general trend of the Birmingham  
churches is, however, on different lines. A  
simple Early Christian or Byzantine model  
has been followed, influenced, no doubt,  
by Bentley's work at Westminster Cathed-  
ral. Though it must be admitted that  
these interiors make one feel one is in  
Italy rather than in England, such a type  
is admirably suited to economical build-  
ing, particularly in a district dependent for  
the most part on brick.

Mr. Arthur Dixon's little church of St.  
Basil is one which calls for particular men-  
tion. There is something about the pro-  
portions of this interior, with its strong  
granite columns and simple round arches,  
its plastered walls, and decorated wooden  
roof, that makes a very direct appeal to  
the devotional sense. The mosaics and  
marble work to the apse and the inlaid  
marble pavement of the sanctuary, and the  
painted screen, give a pleasant richness in  
contrast to the simplicity of the nave. The  
church of St. Gregory the Great, of which  
only the eastern portion has been built, is  
another church in a somewhat similar  
manner, by Mr. John Ball. Though it is  
difficult to gauge the full effect at present,  
the crucifix with its crimson ground stands  
out effectively against the white back-  
ground of the apse, and the flat coffered  
ceiling is enhanced by vigorous plaster en-  
richment. Mr. Salway Nicol's Church of  
St. Benedict is the largest of these round-  
arched apsidal churches, with a pleasant  
little rectory adjacent to it.

There are many other notable modern  
buildings in Birmingham. Mr. Buckland  
has built some excellent schools, and the  
right sort of architect seems somehow or  
other to have got round the brewers. Two  
public-houses, the "Fox and Goose" by  
Mr. Hobbiss and the "Red Lion" by Mr.  
Bateman, are delightful modern hostelries.  
Both seem to have been built with a lavish  
hand. The former has a lot of solid oak  
about it, with infilling of small bricks,  
and some imaginative variations on the  
"Fox and Goose" carved here and there.



The "Red Lion" is more in the Cotswold manner, in which Mr. Bateman has been so successful. The front is of stone, with two large bay windows and gate piers effectively flanking either side.

Another work of Mr. Bateman's that was visited was a charming little house formed of two old cottages, called "Millmead." The procession of six cars finished its long tour at Bournville to see the good work Mr. Harvey has been doing here, and in particular an old fifteenth-century half-timbered house, on the rebuilding of which the architect has lavished an untiring enthusiasm.

The Birmingham architects entertained their visitors to dinner at the Queen's Hotel before their departure, informal speeches being made by Mr. F. B. Dunkerley, President of the Manchester Society, and Mr. Salway Nicol, President of the Birmingham Association. This interchange of visits is most stimulating, and the example should be followed by other societies.

## COMPETITIONS.

### *New Parliament House, Australia.*

By the courtesy of the High Commissioner for the Commonwealth of Australia in London, we are enabled to give details of the competition, open to all architects, for designs for the Commonwealth Parliament House at Canberra, the new Federal capital city. The ultimate cost of the building is to be within £1,000,000, but—to quote the conditions—"provision shall be made in the designing for an initial housing as an integral construction feature to accommodate the immediate necessary functions without external embellishment, the cost of this first necessary structure not to exceed £200,000." Thus the adaptation to immediate purposes of the shell or core of the building to be completed must have a predominant influence on the design.

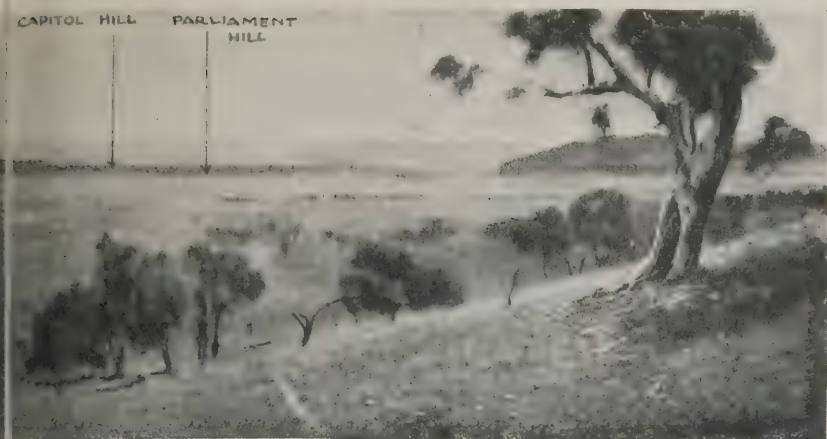
The competition is to be judged by a jury of architects representing Australia,

England, France or Italy, Germany, Austria, and the United States. The first prize will be £2,000, the second £1,500, the third £1,000, while the four runners-up will receive prizes of £500 each for the first three, and £250 each for the last three. In addition there is an incentive: "If any premiated architect has been specially commended by the adjudicators on account of merit, it is possible that the Commonwealth may subsequently commission the author thereof in connection with buildings in the capital." The state, further, that it is intended to construct the building by stages, throughout an indefinite term of years, and the successful competitor will be to supervise the work at the rate of one generation sanctioned by the R. I. such architect does not reside in Australia, he is to be allowed an additional 10 per cent. to cover the cost of his operations from abroad.



GENERAL PLAN OF CANBERRA, THE FEDERAL CAPITAL OF AUSTRALIA.





CANBERRA: THE SITE IN ITS PRESENT CONDITION.

Canberra is "a city in the making," and in designing the Parliament house the architect will be untrammelled by precedent. The conditions give a very good example of what is expected of him.

The Australian Commonwealth, with its historically evolved suitable architectural style, but with unequalled scope in its limited open continent for national development, is in a position to exact a plan and homogeneity in expression to a degree of harmony with whole environment beyond any ordinary unity. Since the city is to evolve naturally, the desired unity cannot be imposed by personality, nor can it with government be established by legislative decree of any arbitrary type. It is desired that the standard of the expression of actual function through organic planning, through direct adaptation of the inherent characteristics of the materials used, avoiding the intrusion of irreconcilable features, however time-honoured on the one hand, or individual on the other. Therefore, Parliament House, with the Government group, is but an integral part in the larger system of parallel offices, all regulated by the same standard, to extend through the entire city to characterise it. Therefore, appropriate scale and relationship to site are imperative.

#### THE GOVERNMENT GROUP.

At the head of "The Setting in the Government Group," the conditions state that the Capitol is isolated and centrally placed in an extensive hill park. It is desired to be either an administrative building or purely for popular ceremonial purposes, or the housing of archives and the glorification of Australian achievement. Its isolation and the height of its position, 50 ft. above the Parliament House, its supremacy as an objective feature, not only of the Government group, but of the entire city. The fact that Parliament is in two houses, in addition to the physical situation precludes giving the structure a focal significance. A wide, level, grassed area, stretched between the hill of the Parliament House and the Government House gives sufficient foreground for the former to set off the latter, over which, however, the Court of Honour and the Departmental Buildings on the succeeding terrace below may yet be seen, the view behind is unintercepted by the basin, public gardens, and along the hillside to Mount Ainslie. Parliament Building, on the brow of its hill, at an elevation of 50 ft. above the level of the buildings next below and is approached therefrom by wide ramps

around the fountain end of a terrace reservoir. From the Court of Honour the Parliamentary edifice has a lofty setting, stopping the long axis of the reservoir, crowned by the capitol behind, and supported on the flanks by the lower departmental buildings, and presents an opportunity for cumulative massing. It is to be noted that the rest of Parliament House itself, as well as of departmental buildings will be important objects of view from the terrace outlooks above; also that maintaining and framing the open axial view through the entire public groups is a desideratum.

#### ACCOMMODATION.

In dealing with the accommodation to be provided, it is stated that the Parliament House will contain two elective bodies, the House of Representatives and the Senate—and the essential requirements set out concern either house (or both) and will have to be in duplicate. It is also emphasised that there must be convenience of access to the Session Chambers to allow of the summoning of all members to a division vote at three minutes' notice.

The accommodation provided for each house will include a Sessions Chamber, 4,000 sq. ft. in area, a room of general access 2,000 sq. ft., and three waiting-rooms of 1,000 sq. ft. There is to be a suite ante-room of 1,505 sq. ft. and a large assembly room each for the Government and the Opposition. Then there are to be 400 private rooms—two each—for members, covering altogether 80,000 sq. ft. Provision is to be made for recreation and refreshment services on one floor as follows: One room for four billiard-tables; one dining-room, 150 members; one dining-room, forty officers; one dining-room, twenty journalists. There is in addition to be a Press suite consisting of three dining-rooms for twenty and two dining-rooms for six. The entrance vestibule will contain private rooms for the doorkeepers and for strangers, and is to connect with observation balconies, roof promenade, etc., and will lead into a general lobby, which is to be made suitable for ceremonials and banquets. The official Parliamentary reporters are to be accommodated in twenty rooms, while thirteen suites of two rooms each will be provided for the Press agencies, besides one large assembly room for newspaper men. The scheme is to include provision for a National Library capable of housing 500,000 volumes, 100,000 documents, and 10,000 bound newspapers, but temporary accommodation is at first to be provided for only a portion of these. The library is to include a reading-room, a periodical-

room, a room for the collection of rare prints, and six study rooms, besides rooms for the attendants, and five rooms for packing, binding, etc. There will also be two special reading-rooms for members of Parliament only.

#### MATERIALS.

The following information is given in regard to materials: Bricks of good quality for rough work are being manufactured by the Government on the ground at a cost of £1 10s. per thousand approximately. Lime is burned from stone on the city site, Portland cement will be manufactured by the Government at an estimated cost of 10s. 4d. per 400 lb. Hardwood brought from a distance. Steel obtained by importation. Fire-resisting construction of the most advanced type is essential, and is most readily accomplished by the general use of reinforced concrete, which imposes the minimum of limitation upon the designer.

#### Baths, etc., Deptford.

Deptford Baths and Washhouses and Public Libraries Committees propose to appoint Mr. A. W. S. Cross, F.R.I.B.A., to advise them with regard to the selection of a number of architects to take part in an architectural competition for the baths and washhouses and library which it is proposed to erect in the north ward of the borough.

## ENQUIRIES ANSWERED.

#### Crown Contracts.

C. D. B. (Brixton) writes: "With respect to Government contracts, which are likely to be plentiful during the war, whom should the contractor sue in case of breach, or who would sue him for a similar reason?"

—The War Office, the Admiralty, and the Commissioners of Works are the chief contracting departments. The Lord High Admiral's Commissioners are invested with his powers with regard to contracts, and any two of them may act. These Commissioners can sue or be sued, but the Admiralty has also the right to proceed by Crown process, but there is no provision under the Crown Suits Act, 1865, for actions against the Admiralty, which could be taken by "petition of right," and the same procedure is necessary in the case of any Agent-General of a Colony, who cannot be sued in England. Ordinarily, the Attorney-General sues on behalf of the Crown. The whole subject of contracts with Government and other public contracts is dealt with very instructively in the recently issued fourth edition, Vol. I., of "Law of Building, Engineering, and Shipbuilding Contracts," by Alfred A. Hudson and C. S. Rewcastle (Sweet and Maxwell, Ltd., Chancery Lane. £3 3s.).

#### Registration of Architects.

A.R.I.B.A. (Birmingham) writes: "How is the registration of architects regarded in other countries? Is it true that in some of them the principle has been affirmed by legislative enactment?"

—Several of the American States have registration Acts in force, so also have New Zealand and South Africa, while France, Switzerland, and Germany enforce registration, and New South Wales and nearly all the Australian States are moving in the same direction. The Royal Victoria Institute of Architects, which has its headquarters at Melbourne, has at its latest general meeting carried unanimously the



following resolution: "That this meeting affirms the principle of registration of architects, and authorises the Council to proceed in the direction of securing the passage of a statutory measure through Parliament." A similar proposal was drafted by this Institute four-and-twenty years ago, when the measure failed to pass because it was too far in advance of public opinion, which is now alive to the necessity of having in every profession competent members only. In all the countries enumerated the regulations seem to work satisfactorily.

#### *Transported Egyptian Obelisks.*

ANTONY (Wisbech) writes: "On a recent visit to London I saw for the first time, and with great interest, the obelisk known as Cleopatra's Needle, on the Thames Embankment. When was it imported? And are there any other instances of similar 'spoiling of the Egyptians'?"

"Cleopatra's Needle" was brought to London in 1878, after a rather eventful voyage, the obelisk, which was encased in an iron cylinder and towed, breaking adrift in the Bay of Biscay, and being recovered with much difficulty. The Romans of the great Empire days had a habit of taking Egyptian obelisks to Rome. Of modern instances we can only recall, besides the Embankment example, the obelisk in the Place de la Concorde at Paris (1833) and that in the Central Park at New York (1879). The practice of placing obelisks one on either side of an Egyptian temple or palace was of immense antiquity, going back some 4,000 years before the Christian Era, but the oldest and largest existing example is that at Heliopolis, which is of red granite, is 66 ft. high, and was put up between 2622 and 2578 B.C. Commonly the pyramidion was covered with a metal shield to protect the stone from rain. "Cleopatra's Needle" is obviously not weathering well.

#### *Lectures on Coal-Gas as a Fuel.*

G. H. T. (Brondesbury) writes: "I noticed some few months ago an announcement that lectures were being delivered somewhere in London on the uses of coal-gas as a fuel. If I remember rightly, the lecturer's name was Goodenough, but that is all I can recollect of the announcement, but I should be much obliged if you could enable me to trace the lectures."

—Two Cantor lectures were delivered before the Royal Society of Arts on March 3 and 10, 1913, by Mr. F. W. Goodenough, member of the Institution of Gas Engineers, on "Coal Gas as a Fuel for Domestic Purposes," and it is no doubt these that our correspondent has in mind. As others besides the enquirer may be interested in these lectures, which are published in a pamphlet, price one shilling, to be had from the Royal Society of Arts, John Street, Adelphi, W.C., it may be useful to give the syllabus: Lecture I.: The substitution of gaseous for solid fuel in the home considered from the points of view (a) of public health, (b) of personal health and comfort, and (c) of domestic economics and labour-saving—the evolution of the gas fire—prejudices against the gas fire—the open fire compared with other systems of heating—radiant heat and convected heat—the relation of heating to ventilation. Lecture II.: Gaseous fuel for cooking purposes—the question of hot-water supply—the various types of gas water-heater—the instantaneous, storage, and circulating systems of hot-water supply—miscellaneous domestic applications of gaseous fuel.

## PROJECTED NEW WORKS.

#### *Hospital Extensions, Swansea.*

The Board of Management of the Swansea Hospital contemplate spending £11,400 on extensions of the building.

#### *Housing Scheme, Newport.*

Newport Town Council are considering the purchase of 4½ acres of land on the Somerton Estate for the erection of 100 houses.

#### *Hospital, Beccles.*

The Governors of Beccles Hospital have passed a resolution in favour of erecting a new building, which it is estimated will cost between £5,000 and £7,000.

#### *Baths, Paddington.*

Paddington Borough Council are to invite tenders for the erection of new baths on "The Lodge," etc., site, and for the demolition of the old buildings there.

#### *Cottages, Bovey Tracey, Devon.*

The Charity Commissioners have given permission to the Bovey Tracey Parish Council to use allotment land at Flat Park for the erection of workmen's cottages.

#### *Housing Scheme, Bentley, Yorks.*

A Local Government Board enquiry is to be held at Bentley, in regard to the Urban Council's application to borrow £26,000 for the erection of workmen's houses.

#### *Reservoir, Southampton.*

Southampton Borough Council have approved a scheme of their waterworks engineer, for the construction of an additional reservoir at Bassett, at an estimated expenditure of £22,000.

#### *Extensions, Stroud, Glos.*

A Local Government Board enquiry has been held into the application of the Stroud Urban District Council for sanction to borrow £1,650 for additions to the public baths, etc. There was no opposition.

#### *Workmen's Houses, Dewsbury.*

The Dewsbury Corporation are considering a housing scheme under which the Old Borough Park will be utilised as a site for working-class dwellings. It is proposed to build ninety-three houses at a total estimated cost of £26,000.

#### *Police Station, Gourock.*

It is reported that many new buildings are contemplated at Gourock, a Clyde port, near Greenock, Renfrewshire. The erection of a new police station and municipal offices is under consideration, and the local Co-operative Society will shortly arrange for large extensions.

#### *Plans Approved, Ilford.*

Ilford Urban Council have approved the following plans: Nineteen houses, 13-49, Montreal Road, for B. Bailey and Co.; three houses, Essex Road, for E. T. Russell; thirteen houses and seven houses, The Drive, for H. Davison; four houses, 18-24, Perth Road, for A. T. Haines.

#### *Housing Scheme, Eccles.*

Eccles Town Council have approved a scheme under which a large area of insanitary property in the centre of the town is to be cleared away and rebuilt with working-class dwellings at a total cost of £85,686. Of this sum £38,768 is for the purchase of land, £37,838 for the laying out of the area and erection of houses and £9,080 for street works.

#### *Enlargement, Birmingham.*

The Birmingham City Council decided to spend £29,925 on the enlargement of the Victoria Law Courts, which were opened by the late King Edward in 1891 and cost £113,000. The buildings are said to be totally inadequate for the increased work consequent upon the extension of the city boundaries.

#### *Workmen's Dwellings, Foleshill.*

Foleshill Rural District Council have reported that the survey Committee have reported that the survey had submitted to them plans for workmen's dwellings, proposed to be erected at Bedworth and Foleshill.

#### *Housing Scheme, Newcastle.*

The Finance Committee of the Newcastle Corporation have presented a housing scheme to the Corporation, which provides for the erection of dwellings, consisting of 84 two-roomed dwellings, 28 three-roomed dwellings in St. Lawrence Square, and eight two-roomed dwellings, eight three-roomed dwellings in St. Lawrence Road. The estimated cost is £22,400.

#### *Public Washhouses, Manchester.*

The Baths Committee of the Manchester City Council have recommended an expenditure of £17,530 for the provision of further public washhouses. The scheme provides for forty washing stalls at St. Peter's, twenty-six washing stalls at St. John's, thirty washing stalls at Newton Heath, and forty-six washing stalls at Osborne Road.

#### *School, Tottenham.*

The Tottenham Education Committee propose to erect a school for 900 scholars (300 junior boys, 300 junior girls, and 300 infants) upon their site at Vale Road, South Tottenham.

*Continued on page xx.*

## PRACTICAL PATRIOTISM

A splendid example of practical patriotism, which we hope will be widely followed, has been set by the Trussed Concrete Steel Co., Ltd., Mr. Moritz on behalf of the firm, having adopted the following communication:

"Dear Sir,—In time of this great war we are anxious to render what little assistance we can to the country. On behalf of my board of directors I beg to place at the services of the Trussed Concrete Steel Co., Ltd., and its engineers in Britain and abroad entirely at the command of the Admiralty. Being a consulting engineers, we employ a staff of skilled designers. The services of the engineers are at your disposal for the purpose of designing and supervising the re-erection of any buildings which are injured by the enemy. Our engineering staff is in any way handicapped by the drafting of men there, we will gladly loan you any of our engineers left at the London office, and undertake to pay the salaries of any you borrow.—We beg to remain faithfully, The Trussed Concrete Steel Co., Ltd."

## THE BUILDING DISPUTES SETTLEMENT.

As we go to press, we learn that the unions involved in the London Building Disputes Settlement have signed the terms of agreement, with the exception of the plasterers, who are main rather stubborn. It is obvious, however, that their consent cannot long be withheld. All the other men are now free to return to work.



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## PROJECTED NEW WORKS.

*Continued from page 126.**Extension, Workhouse Infirmary, Plympton.*

The Local Government Board have approved plans of a proposed extension to the Plympton Workhouse Infirmary at a cost of £2,975.

*New Offices, Chelmsford.*

The Prudential Assurance Company propose to erect new branch offices at the corner of Duke Street and Market Road, Chelmsford.

*School, Congleton.*

The Education Committee of the Congleton Borough Council have advertised for a site for the erection of a new public elementary school for the borough.

*Hospital Wing, Dover.*

Plans submitted by Messrs. Worsfold and Hayward for building a new wing to the Royal Victoria Hospital, Dover, have been passed by the Dover Town Council.

*County Museum, St. Albans.*

It has been decided to proceed with the enlargement of the Herts County Museum, St. Albans, at an estimated cost of £1,500.

*Baths, Preston.*

The Parks and Baths Committee of the Preston Town Council are to ask the Council to approve plans for the erection of new baths in Saul Street at a cost of £20,000.

*School, Sutton Coldfield.*

The Warwickshire Education Committee have recommended the County Council to erect a secondary school for girls at Sutton Coldfield at an estimated total capital cost of £10,000.

*Theatre, Hanley, Staffs.*

The Hanley Theatres and Circus Limited have acquired property adjoining the Theatre Royal and propose to rebuild this place of amusement and considerably enlarge it. Plans have been prepared by a London architect.

*Church, Southend.*

A site is to be purchased in Westborough Road, Westcliff, with frontages in Southview Drive and Electric Avenue, for the erection of a new church. The matter is in the hands of the St. Saviour's Church Council.

*Improvement Scheme, Coventry.*

Coventry City Council have decided to seek Parliamentary powers for making two new streets and widening two others in the centre of the town to relieve the congestion of traffic. The scheme is estimated to cost £300,000.

*Housing Schemes, Bradford.*

At a meeting of the Health Committee of the Bradford Corporation, the recommendation of the Housing Sub-Committee that detailed plans, specifications, and estimates should be prepared for the building by the Corporation of 504 houses and twelve shops on the Odsal estate was considered and confirmed.

*Housing Scheme, Coventry.*

Coventry City Council are considering a housing scheme which provides for the erection of 101 separate houses in Hastings, Severn, and St. George's Roads. The accommodation of each house is to consist, on the ground floor, of a living room, a scullery, larder, and conveniences, and on the first floor of three bedrooms. The Council have also been recommended to purchase 6½ acres of land for the site of a public abattoir.

*Restoration of Whitekirk Church.*

Sir Robert Lorimer, A.R.S.A., has been selected to prepare plans for the restoration of Whitekirk Church. The subscription is £6,400, and about £1,000 still required to allow of the completion of restoration on the estimates which have been received.

*New Headquarters for the Volunteer Civil Force.*

The Mayor of Westminster (Mr. Granville-Smith, J.P.) has started a campaign to raise a million shillings for the erection of new headquarters for the Volunteer Civil Force. Messrs. G. A. Down and Brown, architects and surveyors of 9, Regent Street, S.W., have prepared plans of a building which includes a hall, gymnasium, and rifle range. It is to be known as "The King Edward Memorial Hall."

*Mr. John Brooke, F.R.I.B.A.*

We greatly regret to announce the death of Mr. John Brooke, F.R.I.B.A., senior partner in the firm of Messrs. Brooke and Elcock, F.R.I.B.A., of Manchester, where he had been in practice more than five-and-thirty years. A tender notice of his professional career has unavoidably held over.

*A Second Atelier in London.*

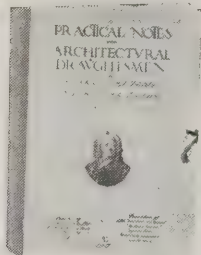
The Beaux-Arts Committee have obtained suitable premises for a second Atelier, which will be opened in autumn, and Mr. A. R. Jerrold, F.R.I.B.A., has accepted the position of patron. Communications should be addressed to Mr. Adrian Perrington, First Atelier, 16, Wells Mews, Strand, W.

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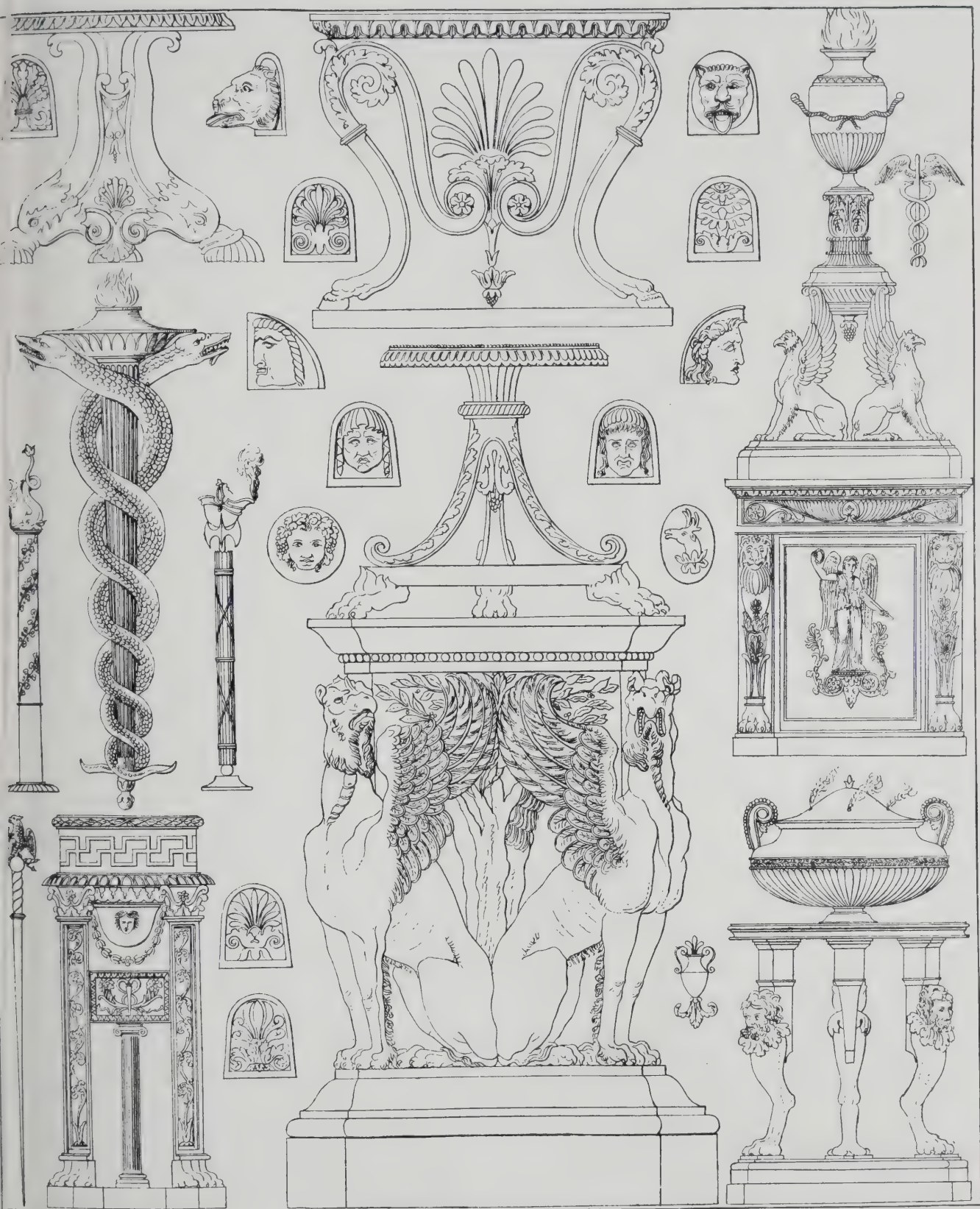


VASES. VII.—LOUIS XIV. VASE, VERSAILLES.



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The Old Palace.



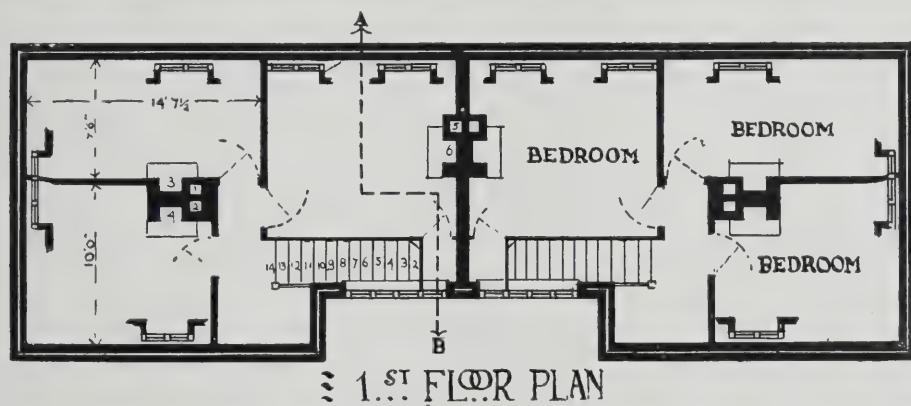
The New Palace. H. Maquet, Architect.

MONUMENTAL ARCHITECTURE. XXVII.—THE OLD AND THE NEW ROYAL PALACE, BRUSSELS.

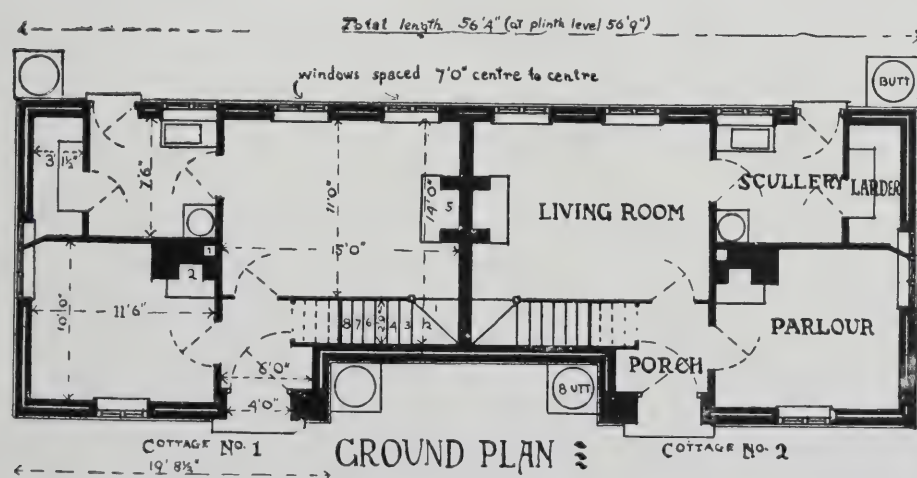


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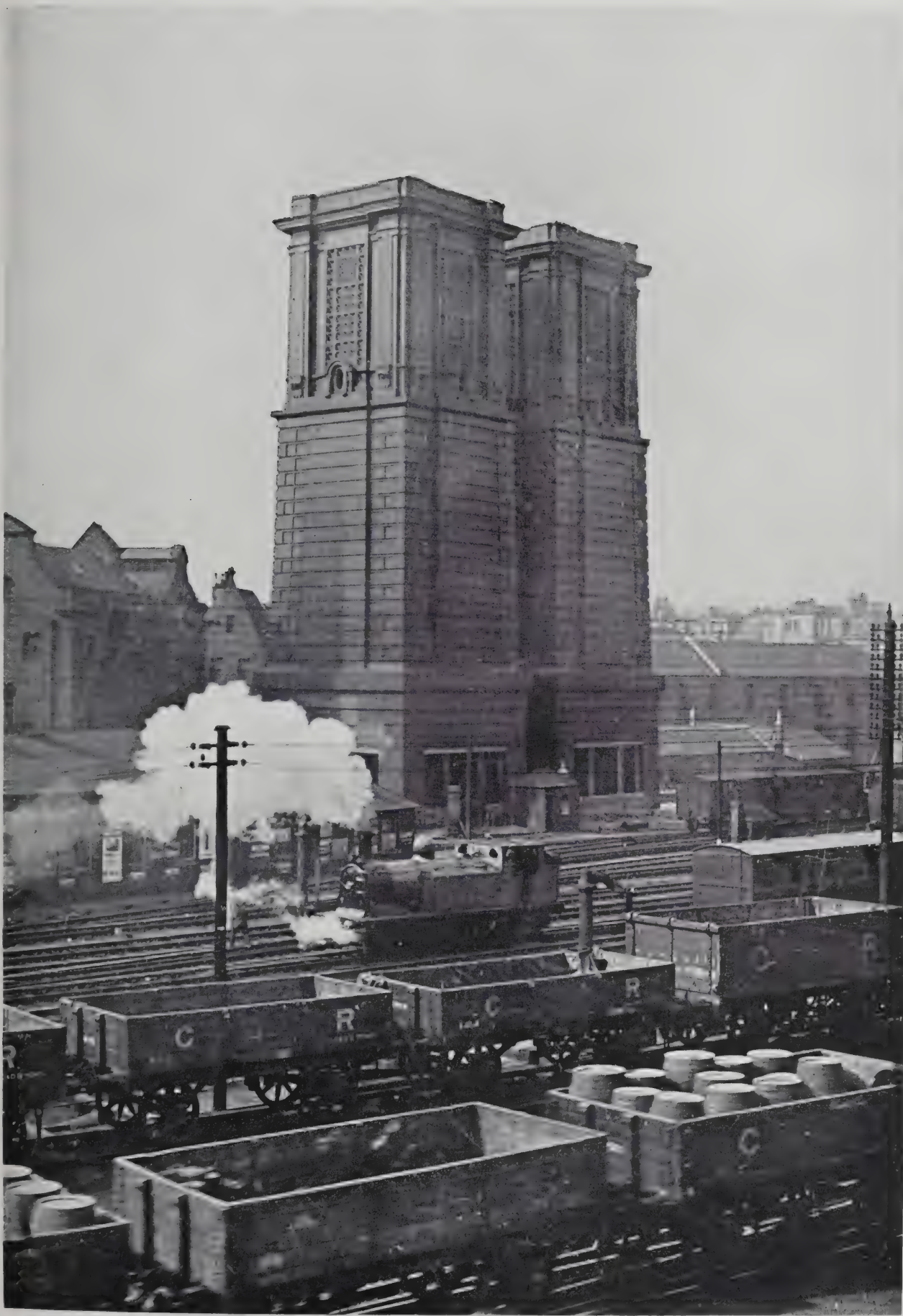


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# THE ARCHITECTS' & BUILDERS' JOURNAL.

Wednesday, August 19, 1914.

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No. 98.



(from Piranesi.)



# THE ARCHITECTS' & BUILDERS' JOURNAL.

AUGUST 19, 1914.

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VOLUME 40. No. 102.

## EDITORIAL.

LAST week we were the first to give publicity to the very valuable intimation by the First Commissioner of Works that it is the intention of the Works Department "to proceed with all services in their charge, to employ as many men as possible to carry out such services, and to develop and expedite their building programme in any way practicable." Appended to this reassuring announcement was an expression of the First Commissioner's "sincere hope that private individuals, companies, firms, and contractors, will spare no effort to follow the policy of the Government in this matter." Possibly the omission of municipal authorities from this short list was not accidental. That councils and corporations will do their duty seems to have been assumed as a matter of course by the First Commissioner; and while this trust in them is probably not misplaced, we would urge local associations of architects to deal promptly and firmly with any instances of neglect or apathy that come under their notice; calling, if necessary, public meetings at which the necessities of the situation should be pressed home. It is a matter in which associations may do much to influence public opinion in the right direction; but we feel sure that the occasions for such intervention will be exceedingly rare. Corporations, as well as "private individuals, companies, firms, and contractors," will be everywhere eager to do their utmost to foster and promote a movement which the Government has so wisely initiated for the good of the country in its time of trial. Everywhere they may be expected, and should be urged, to press forward all schemes that are already in hand or in contemplation, and to inaugurate fresh schemes of public service and utility. It is much better to do this at once than to be forced, later, to spend large sums on more or less useless "relief" works, or worse still, on absolutely unproductive poor-law relief; for excessive unemployment would play havoc with the rates. It is a choice between spending the money and giving it away.

A letter which has been addressed by the President of the R.I.B.A. to its members, and appears in another part of this issue, suggests certain ways in which architects could be of assistance in the crisis; and Mr. Frank B. Dunkerley, President of the Manchester Society of Architects, has addressed to the Manchester Press a letter urging "that now is not the time for abandoning, but rather for pushing forward new building projects, and," he adds, "I would urge upon both private individuals and public authorities the duty of pushing on with such schemes. Any man who has the courage to build now (even if it is only a pair of cottages) will be doing a patriotic action, and will also be avoiding the congestion and high prices which will undoubtedly follow the end of the war." This is a mild example of what architectural societies may do to keep

public opinion sound upon a matter that is of national importance, seeing that the building industry is among the largest in the kingdom, employing 10 per cent. of the total number of the workers in all kinds. It is gratifying to hear that the Institute is using its influence to good purpose, and we trust will act boldly as well as sagaciously; for this is a time for a fastidious observance of mere professional etiquette. We should rejoice to see the R.I.B.A. taking some definite and decided leadership in a national movement for the encouragement of building enterprise and for the protection of professional interests. The steps they have already determined upon will be found in our reference, on a later page, to their special meeting held on Friday last, and we confess to some disappointment at the vagueness of the proposals they have made public; but "in the end, the wisdom of counsellors there is wisdom," and we shall gladly throw open our correspondence column to suggestions that may be helpful to the Institute and the profession generally.

Going back to Mr. Dunkerley's communication, it may be possible to challenge his too optimistic prophecy of "the congestion and high prices which will undoubtedly follow the end of the war." A little history supports him, but modern history is being written on different lines, and in a new spirit. Sea-power will more than ever dominate the situation, and the interference with food supply which had so large an influence in the inflation of prices after the Crimean War is not likely to be again a dominant factor in the present situation, adequate sources of supply being well outside the area of conflict. Of course it cannot be pretended that the withdrawal of millions of men from ordinary productive activities will be without a great effect upon the world's wealth; but it appears probable that, in the upshot, this country will recover more powerfully than ever her commercial supremacy. She will become more self-reliant and self-content. Already the legend "Made in Germany" is obsolescent, and we hear that arrangements are now well in progress for the erection, in various parts of the country, of factories for the production of various commodities and manufactures that we can no longer import from the Continent, and that in all probability we shall henceforth produce or manufacture for ourselves. Germany and her colonies we imported, in 1912, for the value of eighty million pounds' worth of goods, and the production of only a fraction of those will involve a considerable amount of factory building. We are also excellent customers to France and Belgium, whom we imported, roughly, forty-eight million pounds' worth of goods, and twenty-four millions respectively. There is, of course, a certain amount of set-off in our exports to these countries, but, as soon as the seas are all clear we shall find other outlets for our exports. With our allies



of our trade will no doubt be immediately resumed; but with Germany resumption will be slow, difficult, or impossible. It is not likely, for example, we shall ever again be so largely dependent on Germany for the supply of electrical accessories; and the "Electrical Notes" on p. xx. of our present issue expert contributor mentions that factories for the manufacture of these supplies are already being erected, and will be erected with all possible speed.

Most of the replies we have received from architects, builders, merchants, and others, as to the immediate effects on trade are decidedly optimistic. "Business as usual" is their general cry. For example, Messrs. Waygood-Otis, say: "We consider it the duty of all businesses to proceed, as far as possible, as though war did not exist. This we are doing." Other firms give encouraging reports as: "We have not made any change in our establishment on account of the present war crisis"; and "We have no war news: all jobs are proceeding normally"; while others send long lists of the works they have in hand, and assure us that these are proceeding without interruption except where cartage has become difficult owing to the commandeering of horses.

Builders will further take heart from the assurance given in the House of Commons on August 10 with regard to the method of spending the four millions granted under the Housing (No. 2) Bill, which passed its second reading on that date. Mr. Hayes Fisher alluded to a fear lest the Act should lend itself to the creation of large Government building departments, but he had been assured that the Board of Agriculture and Fisheries and the Local Government Board did not themselves undertake building if local authorities and public utility societies did their duty. There arises a further opportunity for architects and builders to keep local authorities up to the mark.

Mr. Robert Cecil, in discussing the Bill, desired the concurrence of the Development Commissioners should be one of its provisions, and his suggestion was agreed to when the House went into Committee on the Bill. It should be recorded, by the way, that the Development Commissioners have announced with a view to maintaining the aggregate volume of employment, they desire to make immediately available the whole of their funds that are still unallocated, amounting to nearly a million pounds. They are prepared to deal as quickly as possible with any business put before them for loans or grants to public authorities, colleges, schools, or institutions, or associations of persons not trading for profit, for the purpose of immediately setting in operation works of improvement falling within the terms of the statute. The Development Commissioners were appointed in May, 1909, the Budget of 1909 having provided an annual grant of half a million sterling during the next five years to be spent on the economical development of the United Kingdom. We understand that the Government have received a deputation of leading builders who were naturally anxious that these large sums should be administered in the wisest possible way—indeed, the money should be capitalised rather than set free for immediate disbursement. Thus encouraged, the deputation contended, it would strengthen the banks, give confidence to builders and building owners, and generally improve the financial outlook of the industry. Other measures for the relief of financial tension have been since announced by the Government; but the representations of the builders no doubt be of considerable assistance towards the economical administration of these millions.

Naturally the provinces will be considerably influenced by what London does in the matter of building. It must be remembered, however, that the capital is for the moment the centre of mobilisation activities, and cannot be expected to move quite so quickly as some of the provincial centres, which should therefore act independently of its lead. Manchester, indeed, has promptly taken action, the Manchester and Salford House Famine Committee having urged the city and borough councils to proceed at once with their several very considerable housing schemes—for instance, for the erection of forty tenements in St. Michael's Ward, 130 cottage flats at Cheetham Hill, and for the Blackley Estate extension. Nevertheless, the long dispute in London being now at an end, work is being resumed very briskly on the huge building operations that had been kept only partially going during the lockout, and there is much new work in contemplation. London County Council will no doubt use all expedition with its great county hall, and will hardly need urging to put in hand without delay the many schemes for school building and repairs, housing, fire-brigade buildings, tramway extensions, and other works of public utility falling within the Council's jurisdiction, which, in the ordinary course, might have been spread over a longer period of time. Similarly, the Corporation of the City of London, which is never backward in matters of patriotism, will, one may imagine, see for itself the desirability of putting in hand with all possible speed its many street-widening and other improvement schemes, as well as the Guildhall extensions, the renovation of the Mansion House, and the construction of the new St. Paul's Bridge. Also the Port of London Authority, the Metropolitan Water Board, and the Asylums Board should, like the numerous borough councils, vie with each other in promoting building activity. The Board of Education are appealing to the local school authorities to put in hand as much building work as possible. Nor should the Road Board need the spur. Funds permitting, it might very well seize this opportunity of beginning one of those gigantic schemes of arterial road making which are ultimately to make London an exemplar in rational lay-out. But they will certainly be called upon to make extensive grants for the highway works which have become doubly necessary in consequence of the extraordinary traffic of mobilisation and of the increased need for efficiency for that purpose. This work will no doubt absorb much unskilled labour. Now, also, is the accepted time for settling the London University question in the spirit of patriotism.

With the deepest regret the profession will learn of the death of Mr. Charles Mewès, an architect who, in his single capacity in France, in conjunction with Mr. Arthur Davis in this country, and with M. Bischoff in Germany, has carried out a large amount of very important work. Such buildings as the Royal Automobile Club, the "Morning Post" block, and the Ritz Hotel, proclaim at once the hand of a designer imbued with the highest qualities of architectural expression. These buildings are reminiscent of the best French work, and by their fine sense of scale and their refinement of detail, have set up in London a standard which is worthy of close emulation. The architectural profession, therefore, will the more deeply regret the passing away of one of their most distinguished members. A list of the chief works carried out by Mr. Mewès will be found on another page of this issue.

We very gladly afford free space among our advertisements (page xii.) to the subscription form of the Prince of Wales's Relief Fund, the object of which, we need not say, has our heartiest commendation.



## HERE AND THERE.

THE city of Paris is counted by some people to be the greatest artistic achievement of the human race: that is, the greatest unit that calls up a single definite association in the mind. By virtue of its social content and its æsthetic significance Paris cannot fail to make an irresistible appeal to the whole of mankind. The narrow prejudices of nationality have little influence here; both in Europe and America intelligent citizens acknowledge the claim of Paris to be the very centre of civilisation. It is not the intellectual life of Paris that is responsible for this, for quite small cities have even greater academic fame; the reverence in which it is held is due to the fact that in a special manner the dignity of communal existence has there found architectural expression. I happened to be in the Boulevard des Italiens last week, at the beginning of the present crisis, when the ominous telegrams concerning the Austro-Servian conflict were posted up behind the windows of the newspaper offices; and it occurred to me that the horror of a European war must have been brought with peculiar vividness to the minds of those who possess a city which they rightly regard as one of the grandest triumphs of culture and of peace, something fragile and precious. But the denizens of many of our "Garden Suburbs" would probably hear the announcement of impending Armageddon with comparative equanimity. It would be irrational if a vision of destructive armies were to disturb them overmuch.

But great as is the repute of Paris it may be doubted whether its charms are fully appreciated even by the inhabitants themselves; a good many modern Parisian buildings are of such a character as to suggest the reflection that the men who are responsible for their production are not cognisant of some of the special beauties of their city—I refer to the innumerable streets dating from the seventeenth and eighteenth and early nineteenth centuries, which seem to me to be perfect exemplars of what street architecture should be. It may illustrate the change of taste in these matters which has come over the public mind if I quote a few sentences from an author who has recently been discoursing on "The Windows of Paris." The article is written in an attractive style, but the conclusions arrived at are hardly such as can commend themselves to those to whom architecture is a serious pursuit and not merely an excuse for a refined species of sentimentality.

This author says, "About most of the windows of Paris, which are of course relatively modern, there is an air of middle-class prudery. No display of emotion as with the London bow-window, which is bold almost to intrusiveness, pushing out its bull-eyed, jolly rotund British 'mug' to the kiss of every glint of sunshine that ventures shyly up the little misty suburban street. The 'bow-window' has never achieved 'right of city' in Paris. It remains an undesirable alien, with their eternal 'petits rideaux'—the 'brise-brise' is a mere intrusion of snobbery, leaving the real social and moral problems of the street unassailed—the windows of Paris seem to be hiding or at least trying to dissimulate the minor scandals of every-day domestic life. Their very uniformity is a shield against prying inquisition, an added blind. Now this secretiveness is a phase of insularity, for Paris, in spite of what the French may think to the contrary, is as insular as London. Originally built upon an Island, still known as the Ile de la Cité, Paris has cherished and fostered her insularity throughout the ages."

But it is the virtue of the Paris streets that they have

so few bow-windows, that the long façades have a flat surface which provides such an admirable background for the ever-moving aggregate of people and vehicles. Some people talk of the "monotony" of the Paris thoroughfares, but nobody who has studied them could make such a charge against them. Monotony, if remarkable, is rather the great variety of detail derived from countless mutations of arrangement, always, of course, within the limits imposed by the appreciation of the elements of street design; except at doorways, delicate mouldings round the windows provide a pleasing diversity in the patterns of the building. The ironwork provide a never-failing interest. While the horizontal lines are so strongly emphasised, the verticals may be of different heights, and the storeys of adjacent buildings need not coincide with one another, and yet the sense of continuity is retained, and without dulling the street has been vested with the quality of repose. Even a broken skyline, a hotchpotch of chimney-stacks, with tall clay pots set irregularly, as can be seen in the Rue de la Paix, fail to spoil the charm of the scene presented to us. For, in spite of the multiplicity of detail there is a residuum of order and simple and definite shape that gives the scene coherence by which every work of art must necessarily be distinguished.

It is an injustice to describe this admirable result as being in any degree suggestive of "middle-class prudery." When the writer says that the bow-window has never received right of city in Paris, one wishes that it were possible to agree with him. Unfortunately, although this feature is absent from the streets out of town, in nearly all the flats and shops are quite modern it is very prominent. In the buildings a German rococo style of the very worst seems to be favoured, and it is painful to have to look upon façades destitute of every quality of interest, having prominent bay-windows fancifully curved on plan and unconnected with the rest of the fenestration, coarse bunches of fruit naturalistically carved in relief, and instead of the long balconies characteristic of eighteenth-century work, separate little ones for each window—also curved on plan. This is not French street architecture, and it is for the most part deplorable. Such a result is partly due to the fact that the most accomplished artists in France do not deign beneath their dignity to design ordinary dwellings. But even if it were otherwise it is almost impossible in these democratic days to maintain a proper standard in these matters unless there is an abundance of criticism, and the cause of art is not served when the reticence of street façades is scornfully dubbed "secretiveness" and "a phase of insularity." The latter comparison is an example of the shifts to which writers are reduced when they attempt to apply to architecture without having first established a set of canons. Being unable to analyse the forms in front of them they clutch at straws of historical associations.

COSMOPOLITAN

## SUBSCRIBERS ABROAD.

COMMUNICATION with foreign countries has been greatly interrupted in consequence of the war, and it is probable that our subscribers abroad are not receiving their copies of THE ARCHITECTS' & BUILDERS' JOURNAL and THE ARCHITECTURAL REVIEW as regularly as in ordinary circumstances. They will of course understand that we are not responsible for delay in delivery, as we are continuing to send the copies regularly to all countries except Germany. We have no reason to doubt that these copies will eventually reach their destination.



## THE GOVERNMENT HOUSING SCHEME.

The scheme of the Government whereby the sum of £4,000,000 will be spent during the next twelve months on the erection of houses for the working classes in urban and rural districts is one which has created immense general interest. It is, of course, only a temporary scheme, its underlying principle being to provide employment among a certain section of the community who might otherwise be thrown upon distress relief. But there is also an important aspect of the matter, namely, the getting out of work which is earnestly needed in the way of housing accommodation. In recent years it has been made increasingly evident that there is a shortage of working-class houses in town and country, and the spending of the huge sum of £4,000,000 towards making good the deficiency will be one of the greatest general benefit. The Government scheme, therefore, has a two-fold merit, first in providing employment for a large number of men, and secondly in meeting the problem created by a dearth of housing. It is obvious that the money will be far better spent in this way, whereby there will be a definite material return in the form of housing accommodation, than in the distribution of money for the relief of distress due to unemployment—expenditure which, though in certain circumstances it cannot be avoided, is entirely fruitless, and is frequently only to be adopted in the last extremity.

The Bill was introduced by Mr. Herbert Samuel, as Secretary of the Local Government Board, and was speedily passed through its several stages in the House of Commons so that the measure might be brought into operation with the least possible delay. It is a very short Bill, and a perusal of it as printed does not furnish any details of the particulars of the manner in which the scheme is to be carried out. The information elicited in the discussion of the Bill in the House of Commons is of a very scanty nature, but, such as it is, it may be given.

Mr. Samuel, in reply to a question, said that it was the intention of the Local Government Board nor the Board of Agriculture to build houses in cases where they could get the work done by the local authorities or the public utility societies. He was prepared to accept an amendment providing that action should not be taken except after full local inquiry. The intention of the Government was that houses and flats should be let at an economic rental. The Local Government Board did not want to deal with suburban districts or with mining towns and villages, although both these might be in rural districts

technically. The Board would be empowered to buy houses and put them in order, but would not be empowered to do ordinary landlord's repairs. The operation of the Bill would be limited to one year. Local authorities would be invited to submit schemes which, under the Bill, would be aided according to the amount of distress or unemployment existing in the locality.

On referring to the text of the measure, we find that it gives power to the Board of Agriculture and the Local Government Board to acquire land and buildings for housing purposes, and to make any arrangements with local authorities and various societies for the development of housing schemes, the expression "housing purposes" being intended to mean "the provision, maintenance, and management of dwellings and gardens and other works or buildings for, or for the convenience of, persons belonging to the working classes." This last distinction is of some importance, as it would be a huge mistake if the houses were occupied by persons whose income was comparatively ample. We think it would be a good idea if the scope of the scheme were confined to persons whose income did not bring them within the range of Income Tax, that is, not exceeding £160 a year.

The Bill is to extend to Scotland, its chief application there being (so we are informed) to Rosyth—the great naval base which is being carried out by the Admiralty. We understand that a very large sum of money is to be spent at Rosyth for housing purposes, the direction of the scheme being under the Scottish Office of Works.

In so far as the scheme is an emergency measure, it will counteract a considerable amount of unemployment which is bound to arise in war time, and on that account alone it has been well received. There are, however, some aspects of the matter in regard to which architects especially feel some doubts. The chief of these is, that the money may be handed out to local authorities, all and sundry, and that houses will be built of a type far from satisfactory, and, what is of even greater import, regardless of any general scheme. The work must necessarily be put in hand without delay, and there can be no question of holding enquiries and formulating schemes in the ordinary way. At the same time, two paramount considerations which should be kept in view from the commencement are:—

(1) That there should be some sort of town-planning scheme in every case; and



THE GOVERNMENT HOUSING SCHEME: A SUGGESTED TYPE. JAMES AND H. A. DOD, ARCHITECTS.



2) That the houses should be of a satisfactory type.

With regard to the first of these considerations, it may be pointed out that at a time when so much emphasis has been laid on the necessity for town planning, it would be a disastrous thing if, with the money which the Government will provide, large areas were to be covered with houses in total disregard of the future development of the district. It might easily happen, for instance, that on the outskirts of a town a new area might be developed in this way, the whole affair being hurriedly carried out, and later it might be found that essential new roadways required for the town were blocked by the very houses thus thoughtlessly built, with the result that either there would be a serious aggravation of the town-planning problem, or the houses might have to be demolished in order to carry out an imperative requirement affecting means of communication.

In regard to the second consideration, the type of house to be built, the most that can be hoped for in the circumstances is that the least objectionable rather than the best possible may be carried out. For our own part, we think that the ordinary "garden city" type of house is not one which commends itself to the best opinion in the architectural profession to-day. It has been tried and found wanting. A better model should be followed. The recent housing scheme at Chester offers a good example, one which we consider to be decidedly superior to the customary type of small house, with its steep roof and dormers. On the preceding page is an illustration which may be studied with interest in this connection. It is based on a study of the plans which the Local Government Board issued in their memorandum last year. On the double-page plate in this issue we also give some examples of executed work which are worthy of attention at the present time.

There are limitations to any scheme which may be brought forward, but, having considered all the circumstances, we think the best method to adopt would be for the Office of Works and the Board of Agriculture to draw up some sheets of model schemes and standard types of houses, which might be sent to local authorities as a guide. The Office of Works has already an architectural department; the Board of Agriculture has not, and would therefore need to form a temporary one, or to enroll the services of some architects who were capable of directing the necessary work.

We quite realise that a suggestion for standardisa-

tion is one which is open to much criticism, but on the other hand if the Government Departments were to prepare a number of different standards suited to different parts of the country this would be a far less evil than the miscellaneous work which in the absence of any such official direction, would be done by surveyors and other persons without architectural qualifications.

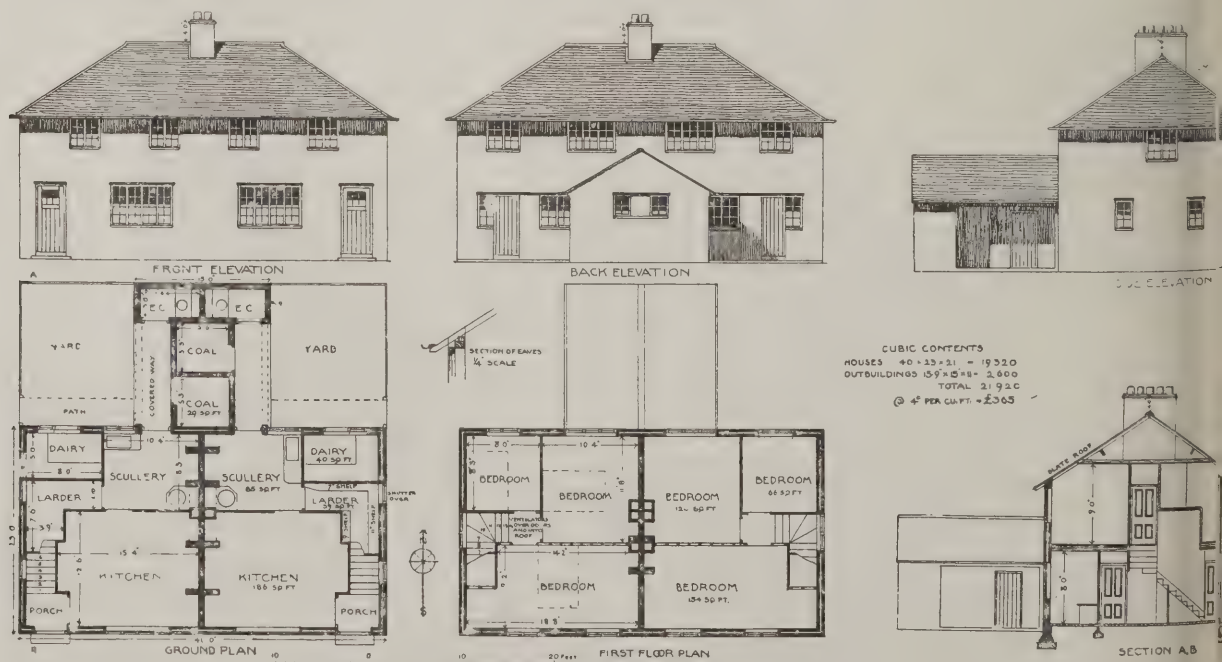
Unless the Government Departments lay down some main principles on the lines suggested above, we fear that throughout the country there will spring up groups of houses which will be an incubus on future generations.

Each locality will call for its own special treatment, but it is earnestly to be hoped that now when houses are erected without, first and foremost, consideration of their relation to a general scheme of development of the district, and in no case by persons without architectural qualifications be allowed to design the houses.

The Government, providing the money, is in a position to enforce its own conditions, and, so far as we can see, a better scheme could not be evolved. The Office of Works will no doubt be handling the housing schemes for urban districts, while the Board of Agriculture will concern itself with those relating to rural districts. As regards the latter, it is to be remembered that a Departmental Committee in the Blue Book some time ago in which a number of types were illustrated. These should prove of great assistance at the present juncture. We reprint here a type of small holding showing the minimum accommodation considered to be suitable.

Another point which deserves consideration is this: is no question of building houses at the lowest possible rate, and, on that account we may legitimately ask that good types only should be adopted.

While readily admitting the worth of the scheme for providing employment for a number of men, it would otherwise be thrown on public relief funds. It is to be held everything should be done by the Government to prevent a large number of unsatisfactory houses being erected regardless of any sort of town-planning scheme: in which connection we would express the opinion that it would be far better to develop a definite new colony should be developed in every district rather than that houses should be put up haphazardly, a few here, a few there, in different parts of the town or district.



THE GOVERNMENT HOUSING SCHEME: PAIR OF SMALL-HOLDERS' HOUSES, WITH MINIMUM ACCOMMODATION.  
(From Departmental Committee's Report.)



## EFFECT OF THE WAR ON BUILDING MATERIALS.

ONE of the immediate results of the European crisis has been a fairly general increase in the prices of building materials. Those supplies which we are mainly or wholly dependent upon the Continent are, naturally, most affected; but many of some products show a tendency to rise. A rapid survey of a few of the principal materials of building will serve to indicate the extent to which the building industry is likely to be affected by the war. Most contractors, of course, make it an invariable practice to order in advance all the necessary supplies involved in a contract, especially when it happens to be of any importance; so that the completion of contracts at the present time, without either loss or delay, is a matter of great certainty.

At the time of writing, bricks, lime, and cement have advanced no advance; cement, indeed, is cheaper, and there is a fall in the price of bricks; and the possibility of a price of stone increasing to any appreciable extent is happily remote. Structural iron, a large portion of which is derived by us from Belgium, has, of course, advanced in price, and the same remarks apply to all general goods in the metal section. Wire, which is all obtained from abroad, are double the usual price, and metal tubes show an advance of 50 per cent.

Spelter and bar-iron are going up; and galvanized work generally shows an increase. This is attributed to the fact that the spelter is nearly all imported from Austria.

Asbestos is a material which we import in large quantities from the Continent, and in this case an advance has to be recorded.

Flax and sash-cord are dearer, and white lead and lead paint show a considerable advance. Lead, being acquired in large quantities by the Government for the making of bullets, and this factor is likely to affect the paint-manufacturers, who, however, may rely upon their supply of barytes.

Granite, in consequence of the closing of the Baltic, has advanced in price about 25 per cent., but other sources of supply, such as Canada and British Columbia, are available; and now that the Atlantic is reported free from hostile warships, there should be no difficulty in obtaining plentiful supplies.

As for the war has had no effect on the granite trade in Aberdeen, apart from removing from the sphere of supply a large number of graniteworkers who are in the army. Even with the full staff working several men it is a difficult task to cope with the many orders for granite. If the war is prolonged, however, a difficulty will arise owing to the dependence now of the monument-makers on foreign granite as raw material. The great deal of the granite used comes from Russia, Sweden, and while the Baltic trade is interrupted the supply of raw material is necessarily cut off. It is, however, that there is sufficient granite stocked in Aberdeen to meet all needs for some time to come.

The shortage of materials is of course severely handicapping the building industry in consequence of the Government's seizure of materials, but in this respect builders and contractors are no less fortunate than other traders.

The reputation of representatives of the building industry has appeared before the Board of Trade last week, and it is understood that proposals were placed before the Government with a view to assisting the industry so that the employment of its 1,000,000 workers may be assured, together with the large number of trades dependent upon it. It is gratifying to find, as we announced in our last issue, that the Government have undertaken to proceed at once with the necessary services in their charge. On the preceding

page we have dealt with one aspect of the Government's decision to spend £4,000,000 on housing. With regard to this matter, contractors maintain that the object to be achieved, if industry is to continue, is the full re-establishment in this country of the credit system; and therefore the banks must be guaranteed against loss. It is thought that if the Government would only intimate to the banks that they had this security behind them, money would soon become plentiful and the building industry would at once return to its normal course. It does not necessarily follow that a single penny of the money would have to be spent. Even in the event of a loss, good security would still remain in the building itself. It must not be thought that contractors are opposed to the expenditure of money on housing; they welcome the proposal; but they do maintain that the principal object at the present crisis is to strengthen the building industry at its foundations, and this end is only to be achieved by guaranteeing the integrity of the banks. [Since the above observations were written, the Government have given the necessary guarantees to the banks.]

Exporters are badly affected by the increase in shipping rates. On the Conference lines, we are informed, all contract rates have been cancelled, and ordinary tariff rates plus 50 per cent. now have to be paid. As a result, in some instances prices have been enhanced by 300 per cent. Insurance rates are also greatly increased. In addition to the usual rate of 7s. 6d. per cent., exporters now have to pay £4 4s. per cent. extra war risk. Freights under these conditions are practically impossible, and it is to be hoped that the increases are merely temporary expedients.

In spite of the increase in the prices of building materials, work is proceeding normally in all parts of the country, as will be seen from the very reassuring reports which are published elsewhere in this issue. The determination of builders to go on with their work as usual is, indeed, one of the most cheerful aspects of the present crisis, which we sincerely hope may not be unduly protracted.

## CORRESPONDENCE.

*The Editors disclaim all responsibility for the statements made or opinions expressed by correspondents, who are asked to be brief, and to write on one side only of the paper. Every communication must bear the name and address of the sender.*

*Cleopatra's Needle, Thames Embankment.*  
To the Editors of THE ARCHITECTS' AND BUILDERS' JOURNAL.

SIRS,—Having constantly observed this monolith ever since its arrival in London in 1878, and having worked under the late Mr. George Vulliamy, the architect under whose supervision it was re-erected in its present position, I notice with interest the inquiry on the subject by Antony (Wisbech).

I am afraid it is gradually wasting away, in spite of anxious efforts made by the London County Council's officers to preserve a most valuable monument.

Though to cover the "Needle" completely with bronze plates would, undoubtedly, preserve it indefinitely, there is a sentimental objection to hiding it from view completely. Would it not be possible to provide bronze angles rebated to receive stout plate-glass to protect the granite? The top of the Needle could be covered with bronze plates. The bronze base, designed by Mr. Vulliamy, probably need not be disturbed. If the casing suggested were done very thoroughly and sympathetically, increasing the size as little as possible, it would assuredly arrest decay, and need not necessarily detract from the appearance and historic interest of the monument.

A. O. COLLARD, F.R.I.B.A.



## THE WAR AND THE BUILDING TRADE: REPORTS FROM ALL PARTS OF THE COUNTRY.

**I**N order to ascertain the present and probable effect of the war upon the building trade, we have been in communication with special correspondents, representative architectural societies, architects, and builders in all parts of the country. At the time of going to press we have received the following replies, which, on the whole, are very reassuring:

*Plymouth and Devonport.*—Our special correspondent writes:—

At this time of trial and stress it is but natural that the thoughts of those directly interested turn to the probable effects of the war on architectural and building interests.

Of Plymouth and Devonport it may at once be said that the situation is generally viewed with quiet confidence. At these important naval centres the magnificent efficiency and thoroughness of our "great silent service" is entirely realised and implicitly relied on. It is, therefore, in no arrogant view that those who are daily brought into close touch with the first line of defence believe that now, as in the past, it is ready "to go anywhere and to do anything."

And so there seems a general desire to "carry on." It is, of course, realised that, at the outset, to a certain extent delay and inconvenience will be inevitable. A considerable percentage of workmen have already left their usual vocations to take up Territorial duties, or, as reservists, to rejoin the army. Others will most certainly respond to the call of the Government for recruits. A temporary shortage of building materials in certain trades seemed to be inevitable, and the delivery of those available may be somewhat delayed.

It is felt, however, that such inconveniences are only going to be temporary. It therefore seems that architects can be usefully employed in the preparation of detail and other drawings that under normal conditions would have only been given attention when actually required. And even if, in some instances, architects should find it necessary to reduce the number of their assistants, it appears that the War Office and the Admiralty have vacancies for a large number of temporary draughtsmen.

There seems, therefore, no cause for pessimism, but, on the contrary, every reason for hopefulness and confidence.

In this district a decisive naval engagement is looked to as a means of clearing not only the air, but our trade routes as well. The result of such an encounter is moreover awaited with calm and confidence though in no spirit of vainglory.

Will, however, the naval strategy of Germany remain what the naval strategy of our enemies has generally been for the past hundred years—"Get into port under the guns of your fortresses, and on no account give battle to a British Fleet"? That is the question everyone is asking.

H. L. THORNELY, F.R.I.B.A.

*Our Cardiff and District correspondent writes:—*

I have interviewed several of the leading builders in order to obtain their views on the subject. It is somewhat early to estimate the probable effects, but the general impression is that we in South Wales are more favourably placed than most people, depending as we do largely on the coal industry.

The immediate effects are already making themselves felt in respect to the supply of labour, many of our local contractors having a considerable number of men ordered to rejoin their regiments.

Certain manufactures which are affected by the war, such as the glass trade, have also sent out notices withdrawing all quotations, and I hear that many of the builders have had their draught horses requisitioned by the army.

However, in spite of this, the builders, in common with the rest of the public, are meeting the situation with calm and cheerfulness.

PERCY THOMAS.

*From Dublin* our special correspondent writes:—

The building trade of Dublin and in Ireland generally has made a rapid recovery from the ill effects of the strike of last year. There has been great activity throughout the spring and summer, and everyone looked forward with pleasure to the close of what had every indication of being a satisfactory year.

It is idle to suppose that business will not suffer as the result of the international complications which have so suddenly and unexpectedly arisen; but the amount of inconvenience caused must depend largely on the attitude now adopted by those responsible for various contracts, and contractors are inconvenienced in many instances by the calling to the colours of their men who are reservists, and considerable adjustments of staffs will be necessary in many cases. There is a tendency to buy supplies in large quantities, but I am informed that the builders' providers hold a large stock of timber, cement, etc., and that this buying of material beyond the usual needs of the moment is quite unnecessary.

It cannot be emphasised too strongly that this selfish and panic-like buying if persisted in will force prices up in an artificial manner, and contractors are urged to proceed in the ordinary way with their business, and trust in those who are responsible for the economic welfare of Great Britain and Ireland. Coolness and unselfishness are needed on everyone's part, if serious inconvenience and loss are to be avoided. That this coolness and unselfishness will be forthcoming there is no reason to doubt.

The most prominent architectural event of the moment here is the Civic Exhibition, and in spite of the strain through which all are passing, it is arousing the keenest interest.

PAGE L. DICKINSON.

*Manchester Society of Architects.*—Mr. Frank B. Dunkerley, President, writes: "At the present time all classes of patriotic citizens are asking themselves in what way they can best help their country in this time of crisis. Much destitution may be avoided if the public will keep their heads and avoid panic. Several instances of the abandonment of building projects of some magnitude have come to my knowledge. Every scheme so abandoned will throw large numbers out of employment and increase the difficulties of the situation enormously. I venture to suggest that now is not the time for abandoning but rather for pushing forward new building projects, and I would urge upon both private individuals and public authorities the duty

of going on with such schemes. Who has the courage to build now if it is only a pair of cottages? Will it be a patriotic action, and will also bring the congestion and high prices which will undoubtedly follow the end of the war."

*Sheffield Society of Architects and Builders.*—Mr. J. R. Wigfull, A.R.B.S., Hon. Secretary, writes: "I enclose a letter, sent on behalf of this society to the Sheffield Master Builders' Association in reply to a request for help in the execution of contracts under the difficulties created by the war. This letter expresses the views which it is hoped will receive the support of members of this society. Perhaps may be allowed to answer the inquiry you have addressed to us. The provision of work suitable for unskilled or for skilled workmen thrown out of regular employment, may be a very important one in the immediate future, and I am pleased to say that this has received local attention. Preparations are being made so that work where labour rather than materials, is required can be put in hand as need arises. The levelling of the ground for road making and similar class of work may be mentioned. This work will not be adopted until others are suggested. My committee is strongly of the opinion that all efforts should be made to keep building workmen as fully employed as possible and upon the work for which they are best adapted."

*Copy of Letter Sent to Sheffield Master Builders' Association.*—"Dear Sir, I am writing you the 6th inst., with reference to the difficulty of completing contracts owing to the outbreak of war, has been considered at a meeting of the Executive Committee of this society. We have requested to convey to the members of the Sheffield Master Builders' Association assurance that, so far as lay in their power, the members of this society will deal with the difficulties which are likely to arise in the present conditions. Your members are, of course, aware that certain contracts now in hand are of an urgent nature and must be completed without delay. Any delay arising in connection with such contracts, the assurance given above will be applied to them. We are desirous to express the hope that, in the interim, the workmen, the master builders will every endeavour to keep in full progress the various works now in hand. A complete stoppage of work, where it can be avoided by any possibility, or even a reduction of the number of hours worked, would be disastrous at the present time. We further requested to say that our members will use all endeavours with their own resources to prevent the stoppage of work, and also try to induce them to proceed with work which, while not yet in progress, can be carried out under present conditions. Yours faithfully, A. F. Watson (President), James R. Wigfull (Hon. Secretary)."

*Mr. W. Thomas, Cardiff (President of the National Federation of Building Trades Employers), writes: "In reply to your letter, we have to inform you*



present, we have not made any in our establishment on account of crisis."

W. White, Sunderland (Past of the National Federation), "I have the following works in new Training College for Women, new schools, Pelton, Co. Durham; alterations and additions, East Hetfield, Co. Durham; new schools, Co. Durham; alterations and St. Margaret's Hotel, Jesmond, new Catholic church, Ryhope, North-Eastern Railway offices, Sunderland. I find myself affected by the crisis, inasmuch as my experienced labourers are, and the Government require—horses make it exceedingly to get cartage done. The railway working fairly well, though of not so efficiently as in normal. Another difficulty that confronts the question of timber supply. Merchants, being unable to get any shipments from the Baltic ports, raising their prices, which makes it to complete work without great appears to me to be important to what is the builder's position if he is to go on with contracts and high prices for timber, or whether he is to suspend work owing to

as. Wright, Nottingham (Past of the National Federation), "I am now finishing three and have another just started—the Nottingham Memorial Hall to the General Booth, which, I think, will be ready. At a meeting of Nottingham it has been decided to invite men to a conference, with a view to being for short time, which I think will likely begin next week, with a spreading the work in hand over a period, as it is practically certain new work will be started in the future. The Nottingham builders have passed a resolution urging the settlement of all local disputes as early as in the interests of the country. We have also contributed from the members of the association towards the Prince of Wales's Disband. I may add that one of the contracts recently let in Nottingham has been suspended till further

Higgs and Hill, Ltd., London, write: "All our jobs are proceeding well."

Dick, Kerr and Co., Ltd., E.C., write: "Our work is under two headings. One is the use of large electrical machines, such as dynamos, motors, and the like in connection with electrical business; the other, the construction department, is concerned with buildings only. We are a building part of an engineering contract. Following are some engineering works now going on that will be started within the next few weeks: Reconstruction of Belfast Corporation Tramways, construction of tramways for the Birmingham Corporation southern outfall works and station for the L.C.C. at Cross Street, Abbey Wood, jetty at Thames for the Anglo-Saxon Petroleum Co., extension in Brentford and Hounslow of London United Tramways, paving for the Heston and Isleworth Littleton Reservoirs for the

Metropolitan Water Board, near Staines, Middlesex. This last-named work, which will start in a few weeks, is of considerable magnitude, the contract amount being £673,800. A very large number of men will be employed."

Messrs. Frazzi Fireproof Construction, Ltd., London, write: "We are executing with all speed a fireproof flooring job at 4, Central Buildings, Westminster, which is going forward for early completion. Our experience generally is that work commenced is being carried on without any delay, but that new works are for the present held in abeyance where projected by private persons or firms. You are, of course, aware that, on the other hand, Government works are being pushed on, and we expect to be more than usually busy in our special class of 'Frazzi,' holding work in sanatorium and hospital buildings, and possibly also a school for the education authorities. Similar work is in hand in several districts, and if the normal state of credit is restored we see every prospect of being very busy."

## NOTABILIA FROM NEW BOOKS.

### *Much Opinion, but Much Less Taste.*

There may, at the present time, be a lack of architectural taste; there is, unfortunately, no lack of architectural opinion. Architecture, it is said, must be "expressive of its purpose," or "expressive of its true construction," or "expressive of the materials it employs," or "expressive of the national life" (whether noble or otherwise), or expressive of a noble life (whether national or not), or expressive of the craftsman's temperament, or the owner's, or the architect's, or, on the contrary, "academic" and studiously indifferent to these factors. It must, we are told, be symmetrical, or it must be picturesque—that is, above all things, unsymmetrical. It must be "traditional" and "scholarly"—that is, resembling what has already been done by Greek, Roman, Mediæval, or Georgian architects; or it must be "original" and "spontaneous"—that is, it must be at pains to avoid this resemblance; or it must strike some happy compromise between these opposites, and so forth indefinitely.—"The Architecture of Humanism," by Geoffrey Scott. (Constable.)

### *The Anthemion.*

No architectural ornament has held its own more consistently than the anthemion. We can trace its origin back almost to the beginning of architecture, we can also trace its use through almost all successive periods up to the present day in one form or another, varying from time to time, changing as architectural styles have changed, but always with essentially the same underlying motive—a leaf of several fronds, sometimes dissociated and sometimes connected with similar leaves or slight variants of the same. Many people hold that its origin is to be found in the lotus flower of the Egyptians. The only difficulty in accepting this lies in the fact that the Early Egyptian representations are not carved architectural ornaments, but painted or incised enrichments whose date it is impossible to determine with certainty. In many cases painted decoration has been applied to earlier buildings, and the date is consequently a matter of doubt. The lotus certainly does occur in Egyptian

ornament, or in that which is based upon the Egyptian, very much in the Anthemion form. It is not, however, the only possible derivation, for there is a good deal to be said for the theory that all the Greek carved enrichments have an Eastern rather than a Southern origin—that they came originally from Asia Minor rather than from Africa. On the other hand, there is a possibility that the dwellers in Phœnicia and Assyria in turn derived their ornaments from Egyptian sources.—"The Evolution of Architectural Ornament," by G. A. T. Middleton, A.R.I.B.A., M.S.A. (Francis Griffiths.)

### *The Architect and the Garden.*

We shall take it as agreed that the architect whom we may have chosen to build us our house, to choose the aspect of our rooms, and to adorn the walls within which we are to dwell, shall not be prevented from completing his work in drawing out the main lines of the garden, nor be forbidden to harmonise the immediate surroundings of the building with the form of the fabric itself. The invention of the architect—provided, of course, that we approve his taste—is as fittingly employed in those endless combinations of walls and hedges, of terraces and walks, of enclosed gardens and long borders of flowers, of lawns and pools, avenues and glades, as it is in the cunning manipulation of gables and chimneys, bay windows and balconies, and all the other features that make up a beautiful architectural composition. Nor, in all this, need he attempt to interfere with the proper province of the gardener; he is the latter's ally, and prepares the way for him. For just as he foresees all the domestic wants in the planning of the house, and prepares it for the future work of the household, so he orders the garden for the gardener, and, having allotted the trees, the planting, and the flowers their places, he can leave their care, and often the choice of their species, to those whose business and experience have fitted them for these duties.—"Gardens in the Making," by Walter H. Godfrey. (B. T. Batsford, Ltd.)

### *Nine Points for Town Planners.*

1. Open up cheap land for building and other purposes by means of new roads and improved waterways.
2. Protect it from excessive rises in value by forbidding land sweating.
3. Protect the ratepayers against exorbitant prices for land required for public purposes by making price, not purpose, the governing factor in State or municipal land purchase.
4. Lease land (not sell it) to the workers for housing, allotments, and small holdings at a price to cover cost plus a small margin of safety.
5. Reform the rating system so as to relieve industry and put a reasonable charge on those who allow land to lie idle.
6. Repeal antiquated legislation such as mortmain and entail.
7. Put town-planning administration in good hands, and not in the charge of men who have axes of their own to grind or too many friends in land-jobbing circles.
8. Appoint a strong central authority not steeped in the old methods, but fully conversant with town planning on modern lines, armed with sufficient powers and endowed with the necessary courage to reject bad schemes.
9. Give this central authority an adequate staff to cope with the work and compel local authorities to attend to their business instead of neglecting it. If these canons are observed, town-planning will result in lower rates, better towns, better health, and better trade.—"Practical Town Planning," by J. S. Nettlefold. (St. Catherine Press.)



## ENQUIRIES ANSWERED.

Under this heading, difficulties met with in professional or business practice are dealt with by a staff of experts. Only really practical questions are desired.

Replies will be published as promptly as possible, and in the ordinary course no charge is made to the querist.

Urgent questions, however, will be answered by post in advance of publication, provided the querist encloses a postal order or stamps to the value of 1s. This sum is not to be regarded as payment for the reply, but merely as an expedition fee; and, while taking every care to ensure dispatch and accuracy, the Editors disclaim all responsibility for any delay or inaccuracy that may unavoidably occur.

In all cases the Editors reserve their right to publish the question and answer or not, as they think fit, and to reject any question that is deemed to be unsuitable.

Querists are asked to state their questions as briefly as possible, and to write on one side only of the paper.

## Setting out a Boundary Wall Ramp.

A. (Lancs.) writes: "Enclosed is a sketch of a boundary wall ramp. Please show the developments of the bed-molds, face-molds, etc."

—Commence by drawing plan A C D E. Divide plan into a number of equal parts as 0 1 2 3 4 5 6 7 8. Step along a straight line the distances 0 1, etc., on outside face of wall. Ditto on inside face of wall, and erect vertical ordinates. Draw elevation of wall on line A B. Project up points 0 1 2, etc., on outside face of plan of wall, cutting top of wall in elevation in 0 ft., 1 ft., 2 ft., etc. Carry across to development point 0 ft., 1 ft., 2 ft., etc., cutting vertical ordinates in 0 in., 1 in., 2 in., etc. Through points 0 in., 1 in., etc., draw a line which will be development of top of wall on outside face. Repeat on inside

development. Draw joints as shown. The application of molds is shown in sketch.

B.

## The "Right of Light."

DOUBTFUL (Bridlington) writes: "Kindly answer the following query:—A owns one house of a pair of semi-detached residences. B owns the adjoining house. A proposes to extend his back room and also the bedroom over same. Can B claim 'right of light' or indemnity from A for the side light of bay or any part of the bay window, which has enjoyed the right of light across A's garden, since the houses were erected twelve years ago?"

—Certainly B can claim that the light reaching his bay window (if in existence twenty years) shall not be injuriously affected by any act of the adjoining owner, but the damage done must be material and not merely sentimental. B's immediate remedy is to apply for an injunction to restrain A, but I should strongly recommend that he should approach his neighbour first to try if terms can be arranged to the satisfaction of both parties. It is always undesirable to go to law, and cases affecting rights of light are almost always expensive.

F. S. I.

## Party Fence Question.

C. (London, N.) writes: "A' is the owner of a close-boarded fence 5 ft. high, and 'B' has erected and fixed on 'A's' fence some trellis-work and wire netting, 2 ft. 3 in. above top of fence, without 'A's' permission. The supports for trellis and netting are 2 in. by 1 in., nailed to 'A's' boarding and posts alternately, causing the boarding to crack. (1) Can 'A' compel 'B' to take his trellis-work, etc., down and fix it independently and repair the damage done to the fence? (2) Are not the nails driven into 'A's' fence trespassing?"

—The answer to each question is in the affirmative; but it is not always politic to insist on one's rights in matters of this sort. Next-door neighbours at enmity can make each other's lives a burden of petty annoyances, and possibly litigation would only make matters worse. 'B's' action is decidedly annoying, and he has undoubtedly put himself in the wrong, but

it would be best to approach him in a friendly spirit. If he does not rectify it will then be time enough to think of proceedings, and it is obviously 'A's' duty to knock down the trellis-work and leave 'B' to go to law if he thinks we do not recommend this course.

## Adherence to Building Line.

G. (Lancashire) writes: "A has purchased a plot of land quite close to a 15-ft. street in between. A intends to erect houses, can B make him keep to the building line, or is this the duty of the authorities?"

—It is the duty of the authorities to enforce their by-laws, and B can take action against them for any failure in this, but he has no other means of dealing with A.

## Cementing Leaded Glass.

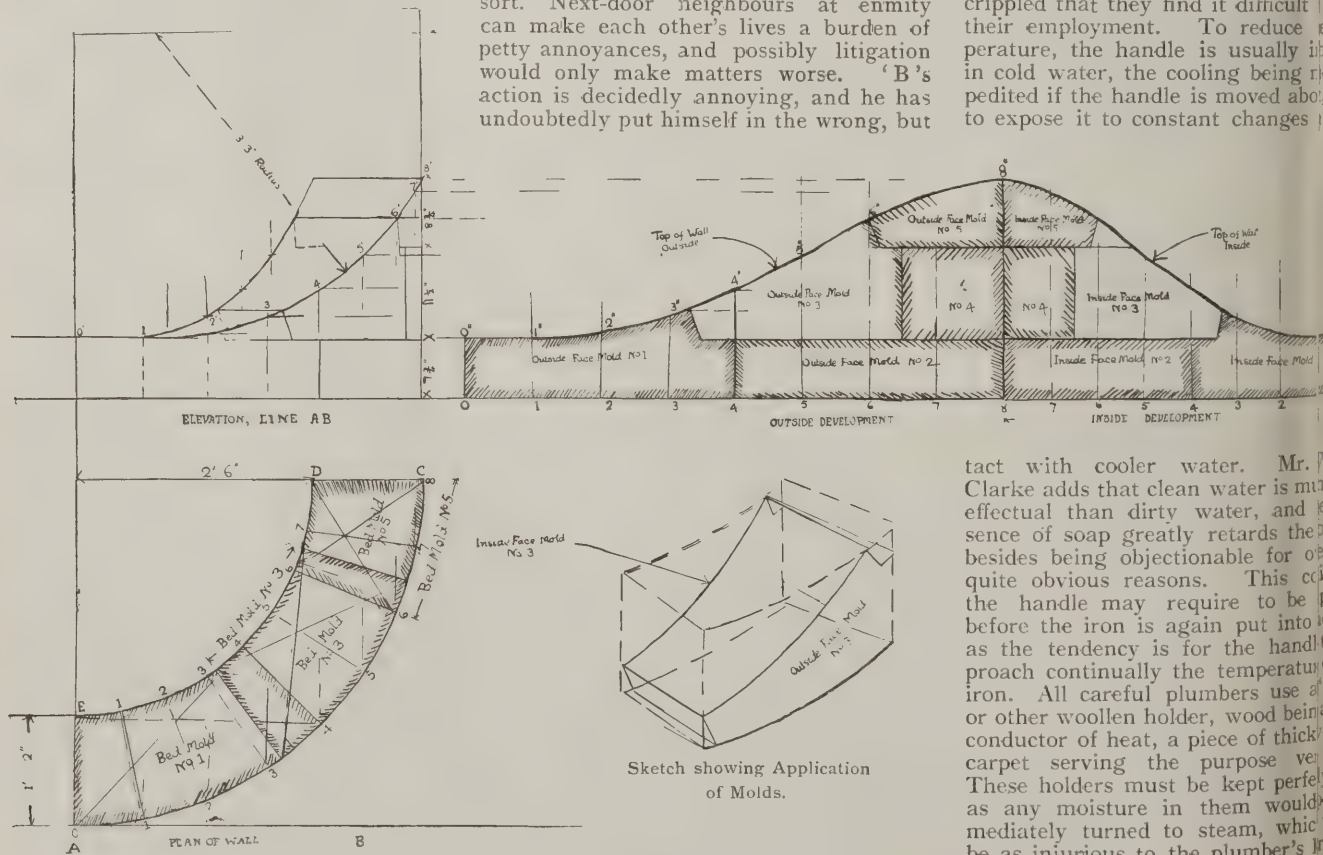
S. W. (Devon) writes: "What is the best cement to use in fixing leaded glass?"

—A mixture that is very effective, rendering the work watertight, is powdered whiting saturated with linseed oil. A little terebenthine will give quick setting, and the addition of a little red lead will give strength to the cement, and the complexion of the glass may be imitated by the use of lamp or vegetable-black.

## Using a Soldering Iron.

ARCHITECT (Redhill) writes: "In case of emergency, I tried my hand at a small job of soldering, but found the handle in using the soldering iron, the handle of which became too hot to hold. What can be done to prevent this?"

—The remedy ought to be quite simple, although many practical plumbers are ignorant of it, to their hurt. It was stated by Mr. J. Wright Clarke, a practical plumber who had an excellent mastery of that by the time they attain maturity many plumbers have their hands crippled that they find it difficult to continue their employment. To reduce the temperature, the handle is usually immersed in cold water, the cooling being retarded if the handle is moved about to expose it to constant changes



SETTING OUT A BOUNDARY WALL RAMP.

tact with cooler water. Mr. J. Wright Clarke adds that clean water is much more effective than dirty water, and the presence of soap greatly retards the drying process besides being objectionable for other quite obvious reasons. This cooling of the handle may require to be repeated before the iron is again put into use, as the tendency is for the handle to approach continually the temperature of the iron. All careful plumbers use a wooden or other woollen holder, wood being a poor conductor of heat, a piece of thick carpet serving the purpose very well. These holders must be kept perfectly dry as any moisture in them would be immediately turned to steam, which would be as injurious to the plumber's hands as the dry heat.



D MAINTENANCE AND  
HEAVY TRAFFIC.

Cheltenham Conference of the Institution of Municipal and County Engineers. Mr. H. T. Wakeham presided at the conference on roads, and the papers discussed were: (1) "The Management, and Maintenance of Roads," by Mr. J. Fred Hawkins, Surveyor of Berkshire; (2) "The Problem of Sub-crust Movement in Roads," by Mr. E. S. Sinnott, County Engineer of Gloucestershire; and (3) "The Principles of Modern Methods of Road Construction," by Mr. Francis Wood, Engineer of Fulham.

Mr. Hawkins argued in favour of county rural management of roads. The desirability of the change had become more urgent since the advent of motor traffic. Nowadays it was not a cart that had to be catered for, but a motor or motor lorry that travelled 20 miles a day. A car might travel on twenty different road areas in a day and the cost of the damage done to the roads could be contributed to in any one of many ways. If the whole area damaged was placed under one rating authority, the cost of repairs paid for by one, the fairness would be apparent to all, and the cost was found why should not the authority who found the money carry the cost? It was not suggested that the authorities neglected their roads. The local authorities were anxious to improve their roads, but having so many other things to do, they had not the financial means and the result was that many roads were not so good as they should be, the allowance for maintenance was not keeping pace with the traffic. At present there were 650 rural authorities, each with its own. Why not reduce these to a few rural areas and at the same time give the chance of our roads becoming better than they are now?

Mr. Sinnott gave the results of his observations on the behaviour of roads subjected to heavy traffic, he having recently carried out certain experiments to determine, if possible, the lateral and longitudinal movement of material forming the surface of highways. The results, he showed that where lateral spread was allowed it could not fail to be ultimately detrimental, as without substantial and immediate support the top coating could not stand up to its work, particularly after heavy rain had taken place; and it became evident how far new surfaces of an experimental character were justified before the lateral movement had been arrested. The means of preventing the action referred to, he recently designed and put into practice a rigid framing, the essential of which was that longitudinal and lateral members placed at a suitable depth in the surface precluded any movement of the sub-crust and at the same time provided means of constructing an impervious surface of tarred macadam to carry the great additional strength being provided by the longitudinal members for the support of the heaviest road vehicles.

Mr. Wood expressed the opinion that the cost of road maintenance and road construction was likely to decrease in the future under proper administration. It was obvious, however, that the whole of road construction and maintenance has suddenly assumed a new and great importance in view of their actual military mobilisation. Nationalisation surely follow.

ARCHITECTURAL INTERESTS IN THE  
DUBLIN CIVIC EXHIBITION.

[SPECIALLY CONTRIBUTED.]

For the Dublin Civic Exhibition the old Linenhall Barracks have been converted into an impressive exhibition building, and plenty of light and space is available. Practically every form of social life, including Government departments, professional and trade associations, and municipal authorities, is represented.

The primary object is to teach people in a rapid and interesting way how they should live, feed, and be housed, and also to help the municipal and rural authorities in their method of work. The housing and town-planning section is wonderfully instructive. The miserable slums and housing conditions, which are such a sore blot on our city, are illustrated. The various schemes which have been carried out to improve these conditions are fully shown, and although many of these are excellent, they are only a drop in the ocean compared to what must be done, and, moreover, be done at once. There are plans and models of the labourers' cottages which have been erected by hundreds all over Ireland, in place of the insanitary hovels which passed for dwellings until the public conscience was aroused.

Among the exhibits are models of the garden villages of Knebworth and Port Sunlight, and while an Irish authority can hardly hope to attain to this level, they serve a useful purpose in setting a high standard, the more essential features of which can be equalled.

The Architectural Association of Ireland organised a small competition among its members for plans dealing with the conversion of old tenement houses into model dwellings. This forms an interesting exhibit, and some of the plans are ingenious and practical. It is to be hoped that owners of this class of property will study these, as they are all arranged with due regard to economic expenditure.

The Congested Districts Board and the Department of Agriculture exhibit plans and models of cottages, creameries, and farm buildings, which have no architectural merit.

The exhibits of the Women's National Health Association and the history section are both exceedingly interesting and well arranged, but do not call for special architectural comment. There are numerous stalls showing vacuum cleaners, patent materials, etc., which although no doubt attractive to a small class of visitor, are of no general interest, and it seems difficult to know the reason of their inclusion in a civic exhibition. The same criticism might fairly be applied to the side shows and roundabouts, which are a source of annoyance to visitors who have an educational object in view.

P. L. D.

SOUTH WALES INSTITUTE OF  
ARCHITECTS.

The outing to London which was to have taken place had to be abandoned, but several members of the architectural profession in Cardiff have visited the quarries of the Yockney and Hartham Park Stone Co., Ltd., and were shown round by the management, after which interesting visits were paid to Castle Coombe, Corsham, and Laycock Abbey.

P. T.

LIVERPOOL'S EXAMPLE TO  
TOWN-PLANNERS.

Mr. J. S. Pickering, president of the Institution of Municipal Engineers, in his inaugural address at the Town-Planning Conference at Cheltenham, said that one or two of the larger municipalities had anticipated many of the provisions of the new Town-Planning Act, and had either obtained Parliamentary powers to carry these into effect or adopted extensive schemes in co-operation with landowners and others interested in the development of building areas.

In 1908 the Liverpool Corporation obtained powers to require the submission and approval of general building estate plans before the commencement of any work, the provision of roads up to a width of 80 ft., the limitation of the length of a street without cross roads to 150 yards, the adjustment and alteration of irregular boundaries, and to accept reduced street works in the case of open spaces given up beyond by-law requirements—most of the provisions that Liverpool, after years of costly experience to the city, had found it so necessary to acquire under a private Act. And many other important powers which at the time the Corporation was unable to secure might now be embodied by any local authority in a town-planning scheme under the new Act.

As an instance of what might take place in any town extension under the limited powers of the general acts a typical case might be mentioned of plans being deposited with the city of Liverpool for the housing of a population of about ten thousand on an estate of eighty-three acres, with no street wider than the minimum by-law requirement of thirty-six feet. In this particular case the operation of a private Act and the good sense of the owner resulted in an amendment to the scheme, whereby a street sixty feet wide and six hundred yards long was made, and the buildings were set back thirty-six feet from the centre of the road. In the vast majority of towns, however, there would have been with an obstinate landowner no power to reject so undesirable a scheme.

To give an example of the economy of laying-out and constructing the main thoroughfares in advance of the development of a town, Liverpool might again be quoted. The five avenues which had been made during the last few years, and which varied in width from 80 ft. to 104 ft., had cost the Corporation an average of about £7,000 per mile, whereas street widenings near the city boundary to a width of only 60 ft. had cost at the rate of £70,000 per mile, and approaching within a mile or so of the centre of the city the cost of widening to 66 ft. had averaged over £350,000 per mile.

There was probably not a town of importance in the county in which costly improvements might have been avoided had a suitable town-planning scheme been in operation during the period of development, and what was true in respect of past experience applied with equal force to existing conditions. No one knew better than the municipal engineer that developments which were taking place at the present time in compliance with the so-called model by-laws will, sooner or later, require to be amended and improved at the expense of the public, in order to meet the most ordinary condition of traffic and to comply with the most elementary principles of hygiene.



## OBITUARY.

*Mr. John Brooke, F.R.I.B.A.*

Mr. John Brooke, F.R.I.B.A., whose death we recorded briefly last week, had been in active practice in Manchester for well over thirty-five years, and during that time had carried out a large number of important commissions. He was a son of Mr. Thomas Brooke, of Mansfield Woodhouse, Nottingham, and was educated at Mansfield Grammar School. In due course he became a pupil of Mr. Frederick Bakewell, architect, of Nottingham, and on the completion of his articles went to Manchester at the age of nineteen. He married Miss Cecilia Sophia Wright, daughter of the Rev. F. R. Wright, for forty years the vicar of St. John's, Higher Broughton, Manchester. Mrs. Brooke died in 1902. For a few years Mr. Brooke was a partner in the firm of Corbett and Son, of Manchester, but at an early date he began practice on his own account in Exchange Street, Manchester, where he remained for more than thirty years. During this period he carried out a great number of important works, and he acted as joint architect with Mr. E. T. Hall, London, for the New Royal Infirmary in Oxford Road, Manchester. He was also architect for the Deansgate Arcade Buildings and the New Church House in Deansgate, Manchester, where the Old Rectory Club is so well housed. His architectural education being largely based on the

Gothic ideal prevalent at the time, he naturally took particular pleasure in ecclesiastical work, and he has left beautiful examples of his skill in many parts of the country. Perhaps the Congregational Church at Ashton-under-Lyne, near Manchester, is one of his best-known edifices. He took particular delight in the designing of the main entrance to Welbeck Abbey for the Duke of Portland, the noble ironwork of the gates and the handsome lodge and gate piers having more than a local fame for beauty and harmonious proportion. He also carried out for the Duke of Portland the almshouses at Welbeck built to commemorate the successes of some of his Grace's well-known racehorses. Mr. Brooke's skill in designing large country houses was widely availed of, and there are few counties in England where evidences of his talent do not exist. For two years he acted as the President (1912-13, 1913-14) of the Manchester Society of Architects, and he was a member of the Council of the Royal Institute of British Architects, taking a keen and most useful part in the important business of the Institute. In 1912 he associated with him as partner Mr. C. E. Elcock, F.R.I.B.A., of Glasgow and Liverpool, and it was a great pleasure to him to see the new firm taking on a renewed life of activity, evidenced by the large works at present in hand. Mr. Brooke was very well known for his active and thoroughly keen interest in every detail of his profession and business. His sterling ability

was recognised by his appointment as assessor of many important competitions, arbitrations, etc. He was a member of the Constitutional Club, Manchester, of the Old Rectory Club, and a member of the Lancashire Cricket Club in which he took a great interest. He leaves four children: Mrs. Robertson, of Shanghai; Mr. T. W. Brooke, A.R.I.B.A., of Messrs. Brooke and Brooke, architects, Shanghai; Arnold Wolff, of Hale, Cheshire; and F. R. R. Brooke, Royal Artillery, Liverpool, the well-known Lancashire amateur cricketer.

## AN EARLY GEORGIAN MANTELPIECE.

An improvement which is shortly effected in Argyll Place has involved pulling down of some Early Georgian houses which contain a quantity of excellent architectural fittings, including and carved wood chimneypieces and plaster ceilings. These fittings were last month by Messrs. Knight, Francis Rutley, by whose courtesy we are shown the accompanying illustration. The mantelpiece is of carved wood, its dimensions being 4 ft. by 3 ft. 4 in. in work, which displays a considerable amount of vigorous detail, is a good example of Early Georgian craftsmanship of which it may be said that every example increases respect for the period.



MANTELPIECE FROM AN EARLY GEORGIAN HOUSE IN ARGYLL PLACE, LONDON.



## R.I.B.A. AND THE WAR.

A general meeting of the Royal Institute of British Architects was held at 9, Conduit Street, W., on August 11, in response to a circular letter that had been sent to members and others suggesting that they should offer to assist the Government in various ways. Mr. Ernest Newton, the president, took the lead in the business, which was brief and to the point, occupied only twenty

minutes. Mr. Webb moved the chief resolution: "That this representative meeting of the architectural profession offers its services to the Government in whatever way it can be most useful at the present time, and that subject to the consent of the Council of the R.I.B.A. it offers the use of the Institute's ground floor and such other rooms as may be required, and that such intimation be forwarded to the proper authorities."

Mr. Webb moved a resolution pledging the Institute to look after the work of young architects who joined the colours. In the discussion he expressed the hope that as far as possible architects would endeavour to continue their normal business.

Mr. Webb moved that a subscription be opened in order that architects might contribute to the Prince of Wales's War Relief Fund. A subscription form was distributed.

Five resolutions were carried, and it was unanimously resolved to give the Government power to appoint a committee of architects representative of the whole profession to give effect to the scheme agreed upon.

The following is a draft of the letter:—

9, Conduit Street,  
Hanover Square, London, W.

August 11, 1914.

The following suggestions have been made of ways in which architects might be of assistance at the present time:

1. Offering their services to the Government, either collectively or individually, in connection with the building, repair, inspection and maintenance of barracks, hospitals, etc., or for any other kind of work which they are qualified to perform.

2. Arranging to look after the work of architects who are already called up to contemplate joining the Forces. It has also been suggested that a Subscription List be opened to enable architects to contribute as a body to The Prince of Wales's National Relief Fund.

The Institute is proposing to act in conjunction with the Architectural Association, which is already moving in the matter.

A meeting will be held at No. 9, Conduit Street, on Friday, August 14, at 4.30 p.m., for the consideration of these and any other suggestions.

I am, Sir, etc.,

ERNEST NEWTON,

President.

## THE PLATES.

*The Government Housing Scheme: Some Suggested Types.*

The expenditure of four millions sterling upon the Government's opportune housing scheme is attended with a certain amount of risk with respect to the character of the buildings for which the money is to be provided. We have therefore thought it desirable to show a few specimens of dwellings that, while inexpensive, are of satisfactory architectural character. Most of these are grouped on our double-page plate, but others are shown in the text of the article on the subject, page 131. It will be useful to append the approximate prices of these, which are as follows: Cottages at Woodstock, £195 each, including drainage and water supply; pair at Dibden, Southampton, about £150 each; four at Marsh Green, Sussex, £128 each; four at Garden Estate, York, £194; cottages at Thetford, £130 each; four flats at Yeovil, £299; small holders' houses, £365; tenements, Chester housing scheme, £195 per pair.

*New Theatre, Torquay.*

The illustration reproduced as Example LXXIX. in the Current Architecture series shows a scheme for a theatre to hold 1,200 people, combined with a café and seven shops, designed by Messrs. Richardson and Gill, F.F.R.I.B.A., and F. G. Moore, M.A., B.Sc. It is expected that the work will be started shortly. The design of the auditorium is in the English manner of the second half of the eighteenth century. The façades are to be executed in Bath stone.

*The Chase, Churt, near Farnham, Surrey.*

Local brick and stone, with Bath stone dressings, were the materials used in the construction of this house, of which the architect is Mr. Harold Falkner, the builders being Messrs. Mardon and Mills, of Farnham. Messrs. Farmer and Brindley, Ltd., did the carving in the frieze over the front door, but the brackets support-

ing the canopy were carved by the architect himself. A very observable effect of strength and dignity is imparted by the pilasters on the front entrance, but it would perhaps have been better if these had been confined to the central bay.

*Entrance Details of Houses at Camberwell and St. Albans.*

There are still surviving in Camberwell many interesting specimens of Late Georgian work, relics of the days when the now densely populated suburb was little more than a village, containing many pleasant abodes of merchants and professional men who daily rode, often on horseback, to and from the City. That they included many men of taste and culture may be fairly inferred from their many pleasant house fronts, of which that shown on the plate is a typical example. The verandah to houses on the Cross Keys Estate, St. Albans, is equally racy of its period, the diagonally disposed bands which seem to tie the clustered units of its columns investing these supports with legitimate interest, while the entire structure is remarkable for its lightness and grace.

*Vase from the Château Chantilly.*

Although this combination of hippogriff and cornucopia is more fanciful than happy, the grace and vigour of the execution atone for the whimsicality of the design, which, moreover, is secure of the suffrages of those who prefer what is *bizarre* to what is beautiful. The vase is obviously one of a pair which balance each other.

*Design for a Monument to the Glory of the British Navy.*

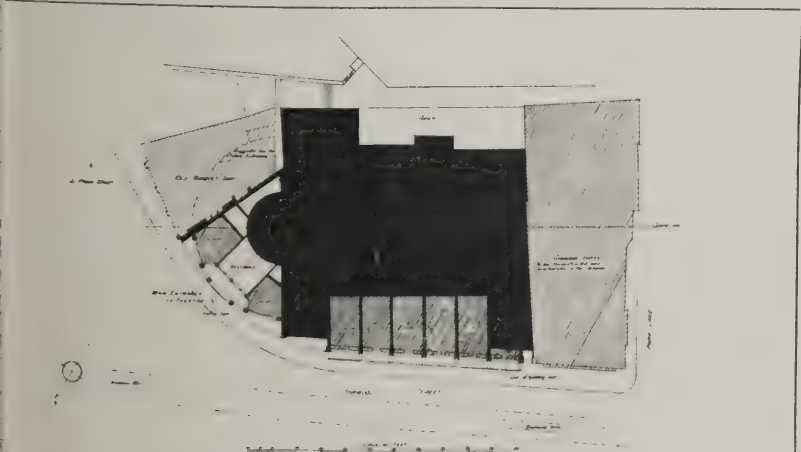
In the almost austere restraint and sturdy strength of this design, by Mr. F. O. Lawrence, of Liverpool University School of Architecture, there is a just embodiment of the spirit and traditions of our Navy. One feels, rather than sees, its entire appropriateness, the architect having abandoned every cheap device by which he could have labelled the monument—the ship, the anchor, the cable, and other too obvious nautical stage-properties, being religiously rejected, while there is but a bare suggestion of the prows of argosies. There is, indeed, much nobility and refinement in the conception.

*Greek and Roman Fret Ornament.*

Custom cannot wither the infinite variety of the fret ornament, which seems to be of universal adaptability, and Cottingham has shown that the harmonious recombinations of the component fillets are as endless as those of the notes of music. So essentially Greek is the fret in its character and associations, that one is apt to forget that it was derived from the Egyptians, who, however, preferred a broken to a continuous pattern.

## A SECOND ATELIER.

The Beaux-Arts Committee, taking into consideration the fact that the first atelier now has its full complement of students, and feeling that the success of the first atelier will be greatly enhanced and the objects of the committee still further promoted by the affording of opportunities for emulation and competition on similar lines, have decided to take immediate steps for the opening of a second atelier in London. The committee are in negotiation for premises, and hope shortly to make some more definite announcement regarding the details of the scheme.



NEW THEATRE, TORQUAY: BLOCK PLAN.

RICHARDSON & GILL, F.F.R.I.B.A., AND F. G. MOORE, M.A., B.Sc., ARCHITECTS.



### BOARD OF EDUCATION AND BUILDING WORKS.

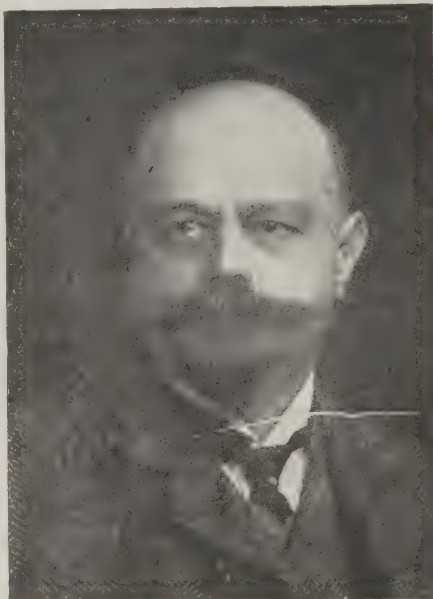
The Board of Education have issued a circular to local education authorities calling attention to the desirability of making preparation to carry out as much building work as possible in areas where an exceptional amount of unemployment was anticipated. The circular adds: "The Board are confident that the authority will see the importance of making arrangements which will enable them to provide employment quickly if and when an emergency arises, so that the demands on the funds available for the relief of distress may be kept down. The Board will use their best endeavours to accelerate the consideration of plans submitted by or through local education authorities for the erection of new school buildings, or the improvement of existing school buildings, and have instructed their officers to assist the authority and their architect by every means in their power. The Board are assured by the Local Government Board that so far as they are concerned they will co-operate in this matter by accelerating as far as possible the consideration of applications for sanction to loans and of questions of sanitation, which fall particularly within their province."

### THE LATE MR. CHARLES F. MEWÈS

We regret to have to announce the death of Mr. Charles Mewès, Diplôme par le Gouvernement Français, Arbitre près le Tribunal de Commerce, S.C., Chevalier de la Legion d'Honneur, etc. Mr. Mewès was the senior partner of the firm of Messrs. Mewès and Davis, architects, 39, Maddox Street, Hanover Square, W., and he also practised in Paris and Cologne; in the latter town he was in partnership with M. Alphonse Bischoff. With Mr. Arthur J. Davis, F.R.I.B.A., he was responsible among other work for the following buildings, etc., in England: The Ritz Hotel, Piccadilly; the "Morning Post" Offices, Strand; the Royal Automobile Club, Pall Mall (Mr. E. Keynes Purchase, F.R.I.B.A., was joint architect for this building); decoration of s.s. Aquitania for the Cunard Steamship Co., Ltd.; consulting architect to the Cunard S.S. Co., for their new building in Liverpool; decoration of s.s. Amerika for the Hamburg-American Line; new theatre and boxing hall for the National Sporting Club, Ltd.; Cavalry Club, Piccadilly (extension); Cunard Steamship Company's offices, Cockspur Street; Carlton Hotel, remodeling and decorating interior; Hyde Park Hotel, internal alterations and decorations; extensive alterations and decorations at several West End mansions and large country houses. He executed the following works from his office in Paris: The Ritz Hotel, Paris; Palais des Congrès, International Exhibition, Paris, 1900; Château de Rochfort; Crédit Foncier, Rue Cambon (in course of erection); house for M. Jules Ferry, house for M. Lucien Guity, extensions, Grand Magasins du Louvre, block of flats in the Champs Elysées, etc., etc.; in Spain, in conjunction with Mr. Landecho, Ritz Hotel, Madrid, and several other hotels; Esplanade San Sebastian; and from his office in Cologne, in partnership with M. Bischoff: The Esplanade Hotel, Hamburg, and several houses, and he designed the fitting and decoration of several vessels belonging to the Hamburg-American Line.

Born at Strasbourg on January 30, 1858, Mr. Mewès entered the Ecole des

Beaux-Arts and became a pupil of Pascal in 1878. In 1885 he was the second *logist* chosen to compete for the Prix de Rome, and in the following year received the diploma. In 1892 he was elected a member of the Société des Architectes Français, and two years later was awarded the *grande médaille* of this society for domestic architecture. He designed for the Continent many banks, châteaux, and residences, but in this country he was best known by his association in the design of the Ritz Hotel, the Royal Automobile



THE LATE MR. CHARLES F. MEWÈS.

Club, and the offices of the "Morning Post." An account of the firm of Messrs. Mewès and Davis, with illustrations of their work, was given under "Architects of the Day" in our issues for April 21 and May 25, 1909.

### COMPETITIONS.

#### Secondary School for Boys, Barnes Estate, Sunderland.

The premiums in the above competition have been awarded as follows: 1st, Messrs. Wm. and T. R. Milburn, F.F.R.I.B.A., 19, Fawcett Street, Sunderland; 2nd, Messrs. Crouch, Butler, and Savage, New Street Chambers, Birmingham; 3rd, Mr. A. G. Horsnell, 55, Gray's Inn Square, London.

#### Town Hall, Middleton.

Mr. Hastwell Grayson, M.A., F.R.I.B.A., the assessor in the above competition, has awarded the premiums as follows: 1st (£100), Mr. A. G. Horsnell; 2nd (£50), Messrs. Briggs, Wolstenholme, and Thornely; 3rd (£25), Messrs. Clapham and Symons-Jeune. Mr. Clapham, it will be remembered, was killed by a motor car some two or three weeks ago.

#### The Increase in Shipping Rates.

We are obliged to hold over until next week two interesting communications with respect to the great increase in shipping rates, received from two very well-known business firms. The point of these statements is that such abnormal charges are contrary to the spirit of the Government policy, and must seriously handicap the maritime commerce of the country. A note with respect to shipping rates appears on page 133 of this issue.

### PROJECTED NEW WORKS.

#### Extensions, South Yorkshire Asylum, Wadsley.

Extensions amounting to £60,000 are to be carried out at the South Yorkshire Asylum, Wadsley.

#### Wharf, Lambeth.

Lambeth Borough Council have sanctioned a scheme for improving the Wharf at an estimated cost of £100,000.

#### Housing, Stroud, Glos.

The Stroud Urban Council have sanctioned to purchase a portion of the Grove for £400, and propose to erect 100 houses of the value of £175.

#### Church, Droylsden.

Preliminary arrangements have been made for the erection of a new church at St. Andrew's, Edge Lane, Droylsden, Lancs., at a cost of £6,000.

#### Technical School, Crompton.

Crompton District Council are arranging to purchase a strip of land near the Street, for the purpose of erecting a technical school.

#### Housing Scheme, Dublin.

The Dublin Corporation, with the sanction of the Local Government Board, borrowed £80,300 from the Bank of Ireland at 4½ per cent. for the purpose of proceeding with a housing scheme.

#### Improvements, Mansfield.

Mansfield Town Council are to spend £2,850 on improvements in Leam Street, Toothill Lane, and Queens Road, while Brunt's Trustees propose to erect six shops in Leeming Street.

#### Housing Scheme, Norwich.

Norwich City Council have instructed their engineer to prepare plans and specifications in connection with the proposed erection of workmen's dwellings in a new road. The amount allocated for the scheme is £41,000.

#### Alterations, Shardlow, Notts.

Shardlow Board of Guardians have approved the proposals of the Finance Committee for extensive alterations to the workhouse. These include a new house for the master (£635), day room for boys and girls (£450), a new infirmary and a new kitchen, the total estimated cost being £7,645.

#### Hall and Baths, St. Ann's.

The Ashton Hall Sub-Committee of the Ashton-on-Sea Council, with Mr. Harrison, architect, have made an inspection of South Coast waterworks to obtain ideas in connection with the erection of the proposed Ashton Hall, the construction of an open-air swimming bath.

#### Town Planning, Rotherham.

Rotherham Corporation have instructed the Local Government Board to consider a town-planning scheme for such part of their area as is unsuitable for development or likely to be used for other purposes. An important block of buildings in the centre of the town is to be demolished and a scheme of street improvement commenced.

#### Garden Suburb, Barry.

Plans of the proposed garden suburb adjoining Castle Farm, Porthkerry, submitted by the Welsh Housing and Town Planning Association to the Housing and Town Planning Committee have been approved. Mr. T. Lloyd, architect to the association, states that ten acres will be taken up, and promoters hope to put up ten houses on the acre.



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## ELECTRICAL NOTES.

*Electrical Industry and the War.*

Apart from the general feeling regarding the war, the hopes, fears, and anticipations of a patriotic nature, there is no doubt that everybody is to some extent concerned about his private or business interests, and wondering to what extent they will suffer or ameliorate. Whilst it is quite obvious that during a war certain trades must benefit (such as those supplying articles for public and military consumption, munitions of war, etc), it is equally certain that others will suffer a temporary set-back, because most people will be careful not to spend money on anything except immediate necessities. It may be interesting to consider, therefore, how far the electrical trade is likely to be affected by the war, both at the present moment and in the future. For the purpose of more easily analysing the position, we may consider separately the home manufacturers, the importing houses, and the retailers, and endeavour to understand how each will be affected.

*Manufacturers.*

The matter is of the greatest importance because, in regard to the electrical trade, Germany is (or was) an almost dominant factor, and it may be accepted as an axiom that whatever happens in the war, whether Germany wins or is defeated, her electrical trade, so far as this country is concerned, will be practically nil for a long time to come. Not only will she not be in a position to do more than satisfy her own needs (which will be small, as the means will be wanting), but there will be no desire on the part of Englishmen to purchase from Germany for many years.

There is another point of importance to be considered, apart from the probable

decrease of German imports to this country. It is a well-known fact that both Russia and France buy large quantities of electrical material from Germany, who has also large German companies operating within those countries, and manufacturing also. France manufactures a certain amount of electrical material herself; but as regards Russia, her output is almost nil, and as a matter of fact she is Germany's largest customer for manufactured goods in the aggregate. All this will change, whatever the result of the war. France will not be in a position to supply a tithe of the Russian electrical demand or of her own home demand, and therefore both will turn to England for such goods as they cannot make themselves.

The following approximate figures are of interest in this connection:—

English electrical exports, 1912 (nett), £5,300,000.

English electrical imports, 1912 (nett), £2,350,000.

English electrical imports, 1912 (Germany), £1,710,000.

English electrical imports, 1912, (U.S.A.), £315,000.

English electrical imports, 1912 (France), £139,000.

English electrical imports, 1912 (Belgium), £159,000.

It is fairly correct to assume that French and Russian imports of electrical goods from Germany are far larger than English, and therefore that after the war there will be a potential additional export trade for England of at least £5,000,000, plus an additional home trade of some £2,000,000, and this does not take into account the business from other smaller countries, who will also divert their orders from Germany. Hence, it is obvious that our manufacturers, however, they may suffer tempor-

arily, will benefit largely in the long run, and they should therefore be making every effort to prepare themselves for the increased trade, to study the likely demands of the countries who will be their customers, and to be ready for any competition.

*Importing Houses.*

The majority of these are German, or at least import German goods. In any case they are likely to suffer severely not only at the present moment, but in the future. The electrical import trade in the future will probably embrace specialised articles made abroad, which for economic or other reasons cannot be made here. But it is certain that a large part of the electrical trade will be largely diverted from Germany to France, Belgium, Italy, and the Scandinavian countries, and the best importing houses and agents can do is to establish agencies in other countries with as little delay as possible. No doubt the lamp trade will be considerably affected.

*Contractors.*

The wiring business is, of course, likely to suffer at first, because it will be considered a luxury except in the case of houses which are going up. The same remarks apply to the sale of electrical fittings and utensils. It is to be anticipated, however, that once affairs are settled, even the end is in sight, the electrical contracting trade will benefit to a large extent in common with all other retailers or necessities. If our anticipations regarding increased manufacturing outputs and enlarged exports are confirmed, they will tend to bring down the price of everything owing to the larger quantities manufactured, and therefore the retailers and contractors will tend to become more favoured on account of increased public demand.



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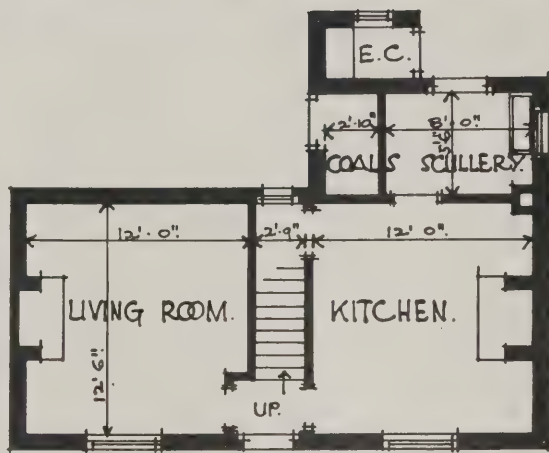
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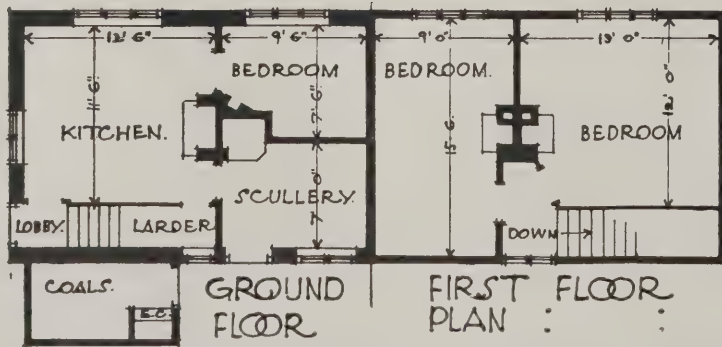
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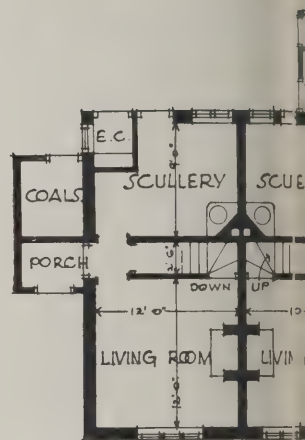


GROUND FLOOR PLAN :

Cottages at Woodstock, Oxon. Frank Mountain, M.S.A., Architect.

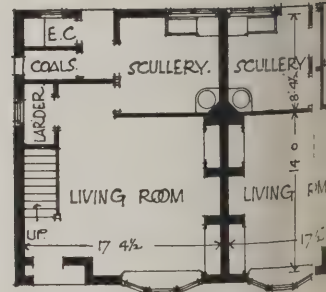


Pair of Cottages at Dibden, Southampton. A. H. Clough, Architect.



GROUND FLOOR PLAN :

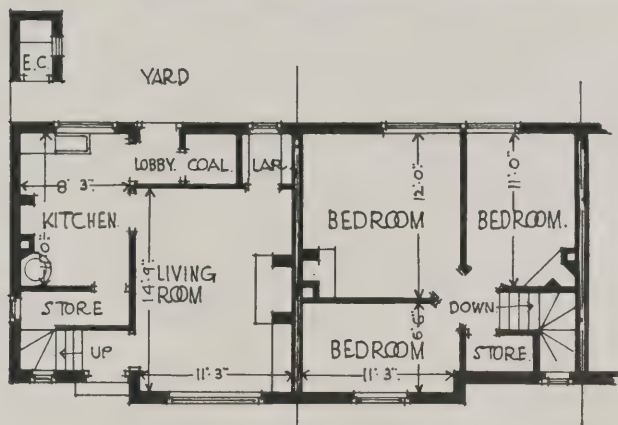
Four Cottages at Marsh Green.



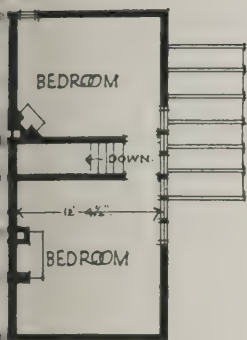
GROUND FLOOR PLAN :

Four Cottages at Marsh Green. Barry Parker and Associates.

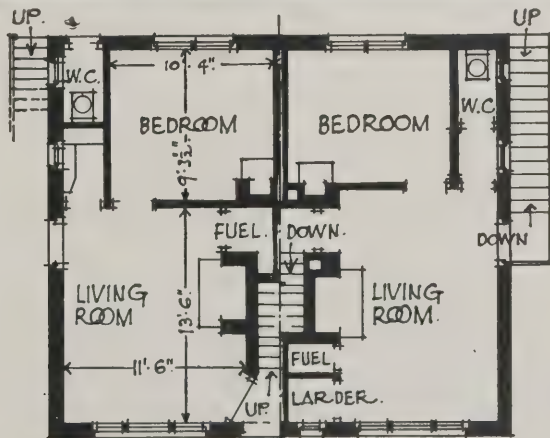




Cottages at Thetford, Norfolk. Stanley J. Wearing, A.R.I.B.A., Architect.

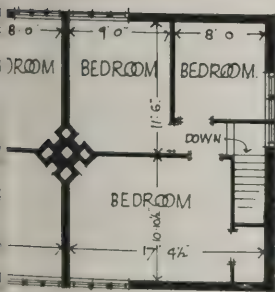


H. Clough, Architect.



GROUND FLOOR PLAN: FIRST FLOOR PLAN:

Houses at Yeovil, Somerset. Petter and Warren, A.R.I.B.A., Architects.



York. A., Architects.



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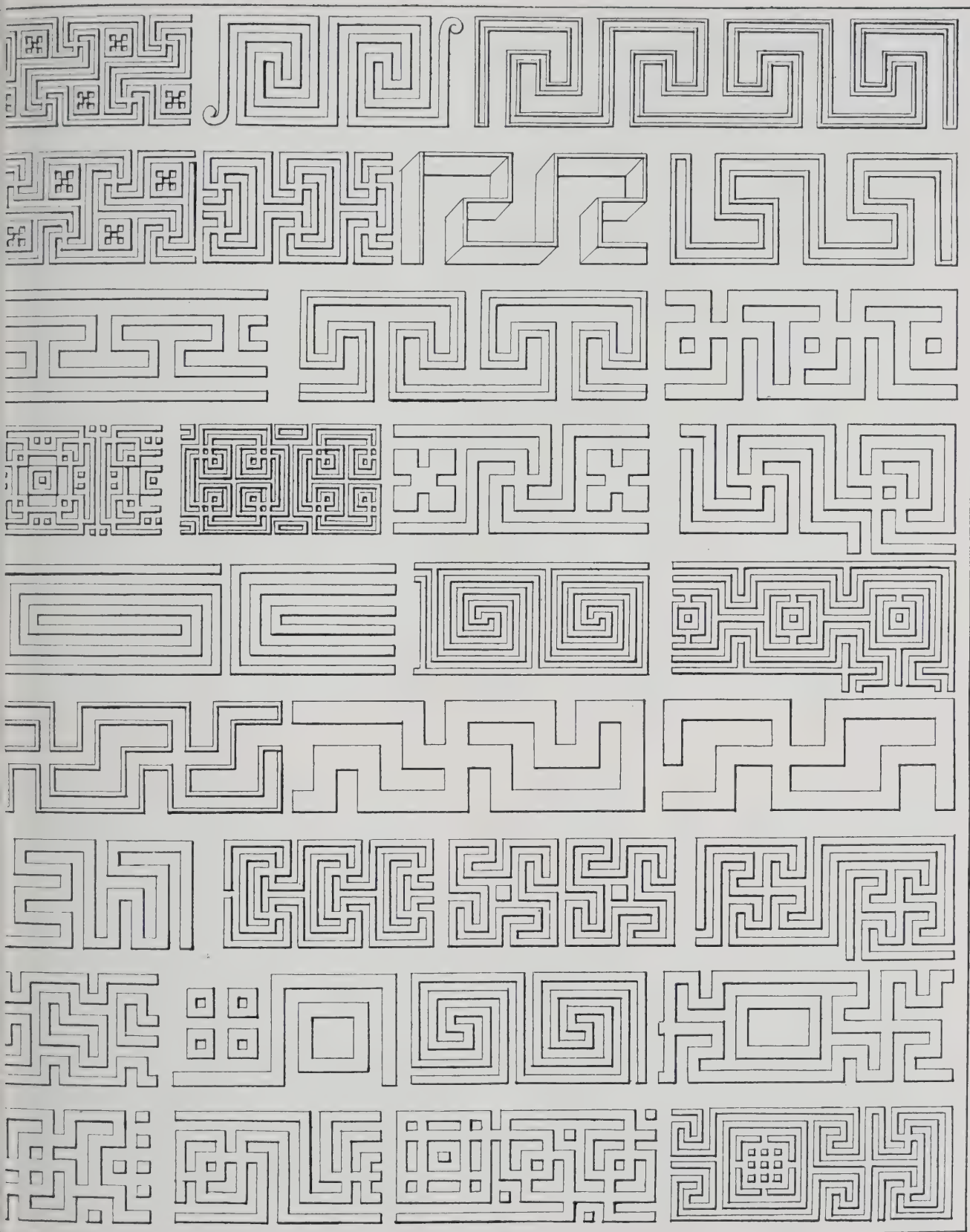


VASES. VIII.—VASE FROM THE CHÂTEAU CHANTILLY.



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COTTINGHAM'S DESIGNS. XXII.—GREEK AND ROMAN MEANDER OR FRET ORNAMENT.









Detail of Entrance to House in Camberwell Road, London, S.E.

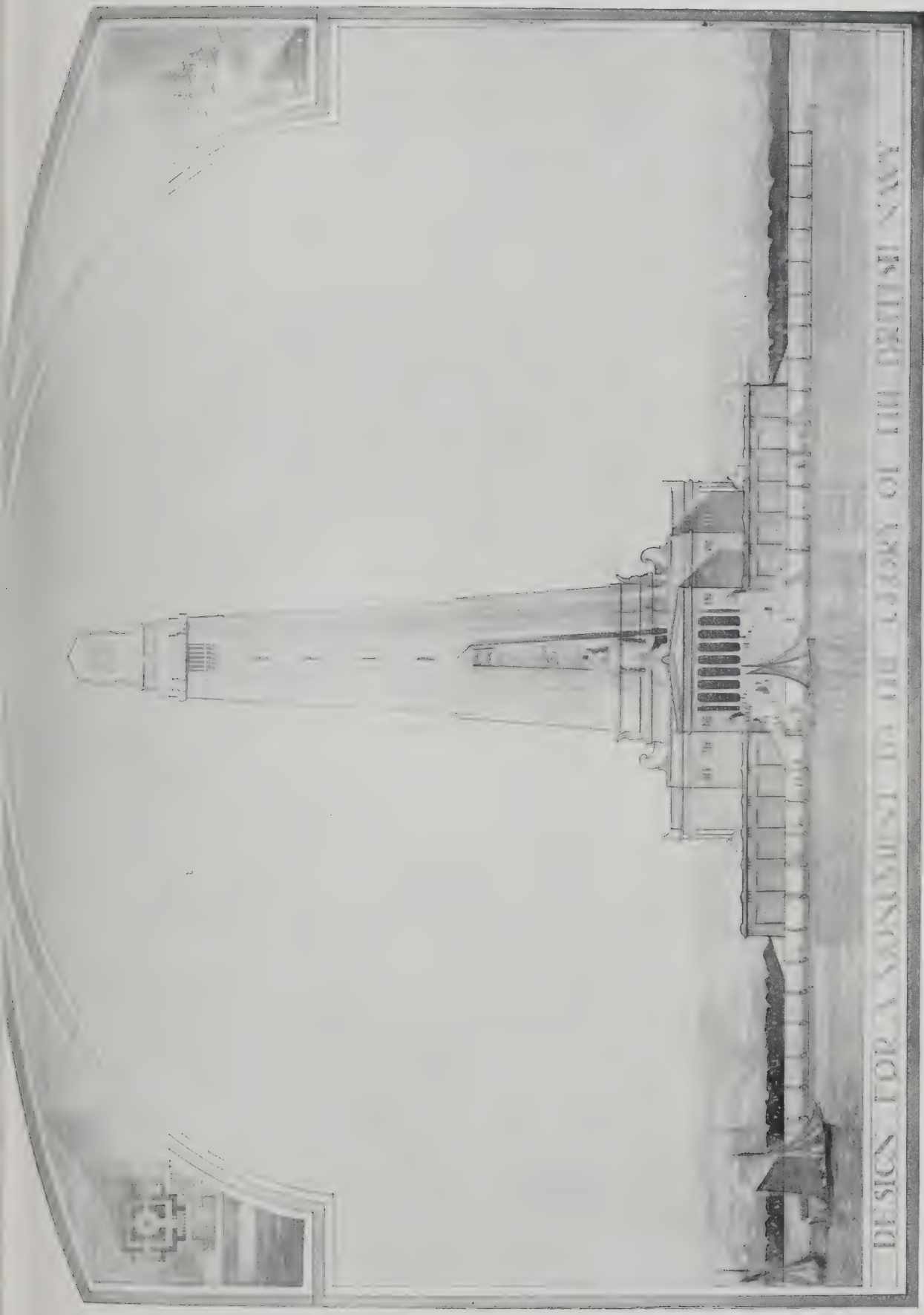


Verandah on Houses, Cross Keys Estate, St. Albans.



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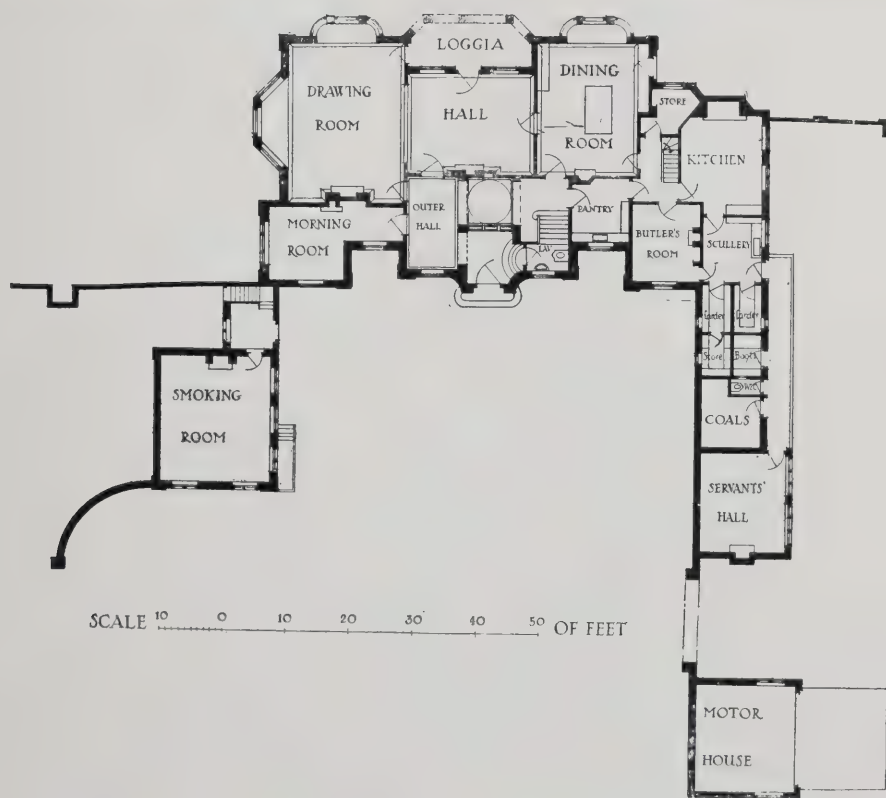


STUDENTS' DRAWINGS. XXVII.—DESIGN FOR A MONUMENT TO THE GLORY OF THE BRITISH NAVY.  
BY F. O. LAWRENCE.



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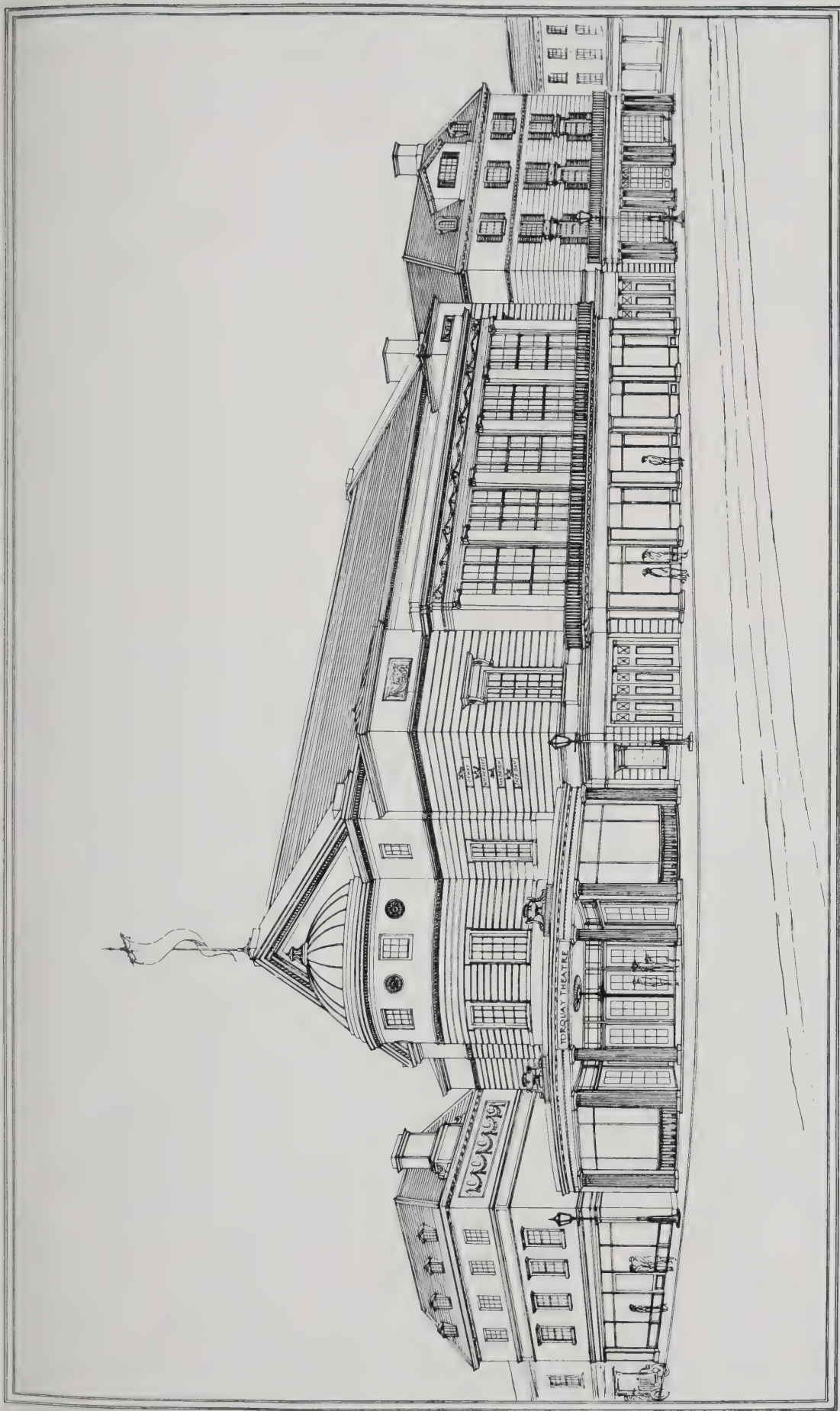


MODERN DOMESTIC ARCHITECTURE. XXXII.—“THE CHASE,” CHURT, NEAR FARNHAM, SURREY.  
HAROLD FALKNER, ARCHITECT.



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CURRENT ARCHITECTURE. LXXIX.—NEW THEATRE, TORQUAY.  
RICHARDSON & GILL, FF.R.I.B.A., AND F. G. MOORE, M.A., B.Sc., ASSOCIATED ARCHITECTS.



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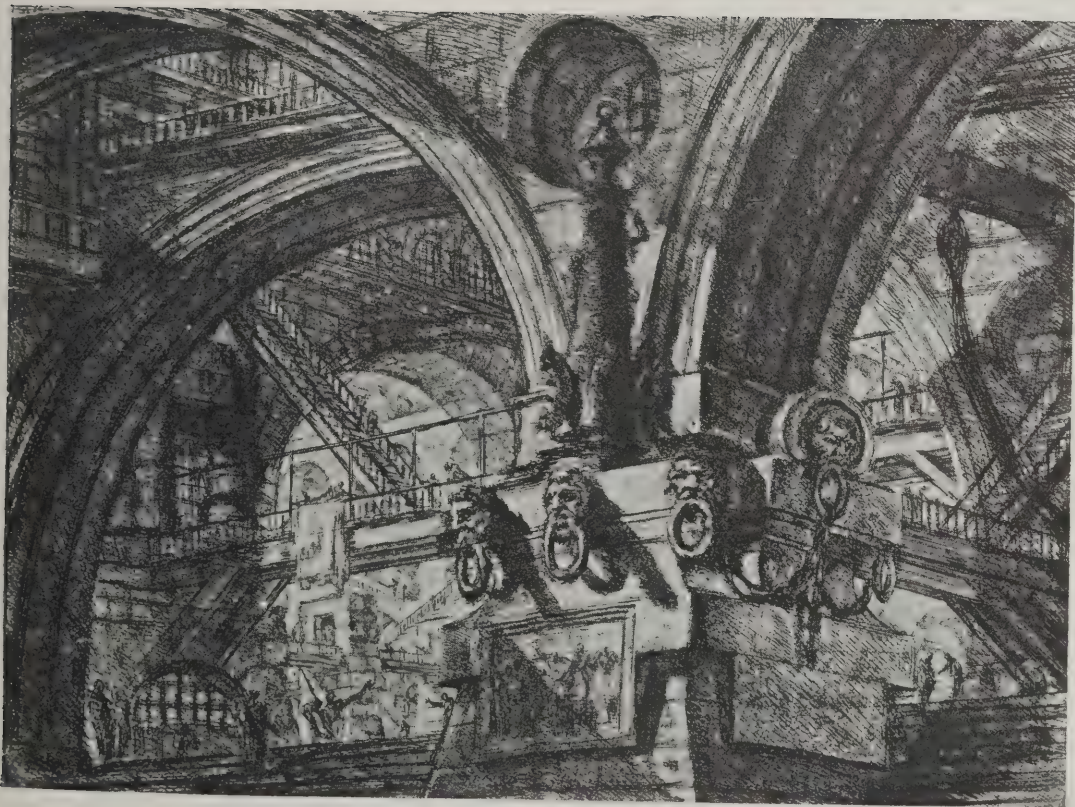


THE  
ARCHITECTS' & BUILDERS'  
JOURNAL.

Wednesday, August 26, 1914.

Volume XL. No. 1025.

No. 99.



(From Piranesi.)



# THE ARCHITECTS' & BUILDERS' JOURNAL.

AUGUST 26, 1914.

CAXTON HOUSE, WESTMINSTER.

VOLUME 40. No. 1025.

## EDITORIAL.

THE Architects' War Committee came into being under that title at a meeting held at the R.I.B.A. premises in Conduit Street on August 18, and anything in the nature of criticism of its constitution and course of action, as now made public, would be untoward, unanimity being essential in every well-conceived movement having for its object our country's welfare in time of war. Interests are no longer sectional, but national, and it is in that spirit that we scan the particulars of the R.I.B.A. scheme. Indeed, the names of the architects who are giving their services to the committee inspire confidence that everything possible is being, or will be, done to assist the Government and, incidentally, to adapt the profession as a whole to the circumstances of the present emergency. As Mr. R. Goulburn Lovell said at the meeting of August 14, "In forming this committee we are uniting the profession, and we go forward with a solid front." To be effective, we can do no other.

For this particular reason, any omissions from the lists of names that may be held to be serious, or any other observable fault in the composition of the committee, should, we think, be indicated privately. This is no occasion for carping criticism in public, and we have no doubt that the Institute will be only too glad to receive any suggestions for the furtherance of the objects aimed at, and it is to be observed that the Executive and General Purposes Committee have power to add to their numbers. Nor should the profession be unduly impatient of what at first may have the appearance of slow movement. So large an organisation, embracing as it necessarily does the entire kingdom, involves an immense amount of preliminary and foundation work before progress can be made visible, especially where negotiations with a tremendously busy Government are concerned. Nevertheless, we trust that the committee will not be chary of reporting promptly every successive step they have been enabled to take, for it is only in this way that they can avoid creating an impression of inactivity or sluggishness—an impression not the less damaging because it may happen to be entirely erroneous.

Of the resolutions adopted, the chief of which are equivalent to "terms of reference," and will form the basis of the committee's operations, it is neither desirable nor possible to say very much, as their effectiveness depends entirely on the manner in which they are translated into practice. The first is purely formal, as it merely instructs the committee to get into touch with the Government. The second provides for the formation of a selection sub-committee to compile lists of architects, with particulars of their qualifications, for use in advising the Government, and to act as an information bureau to help young architects who

are called out for service. Precisely what form the help will take can be better imagined than described. Presumably it is meant for one thing, that any young architect who abandons his practice in joining the forces may be assured that his professional interests will not be neglected—that, for instance, his business will be as far as possible maintained as a "joint concern."

The Executive and General Purposes Committee of the R.I.B.A. War Committee are authorised to open a subscription list to enable architects to contribute to the Prince of Wales's National Relief Fund or a special fund. Last week, in our reference to this fund on p. 138, we did not make it sufficiently clear that the proposal of the Architects' War Committee is simply to appeal to architects to send individual subscriptions to the fund, but to have a special architectural fund which will receive contributions from architects and send the money to the Prince of Wales as a collective donation from architects. In again giving free insertion to the subscription form among the advertisements on p. xii., we have added an intimation to this effect, as no doubt most architects will prefer to subscribe through the Institute, whether or not they happen to be members. As the President of the Institute explained in introducing the subject, the special fund answers the dual purpose of giving, in the name of the Institute, as large a sum as possible as a means of encouraging the small contributions which architects who are not wealthy might not like to send as separate contributions to the general fund. There will be, we understand, a separate and independent fund for the relief of architects who may suffer distress as a consequence of the war.

Two important points that the Executive and General Purposes Committee have been requested to consider are (1) "the desirability of issuing to the profession or to the public an appeal to carry on building work to the utmost extent during the progress of the war, and (2) of urging the Government to allow the railways to carry building materials. Here, again, the terms are somewhat nebulous, more precise formulation of the ideas suggested being apparently left for deliberation. We have advised from the outset that the various architectural organisations may do much in their corporate capacity, to influence public opinion and stir up local authorities in favour of continued building activity; nor should united action be allowed to supersede individual effort to the same purpose. A general appeal of any kind loses much of its effect unless it is pressed home personally. Ordinary architect who urged his client to reconsider a decision to abandon a project would lose his self-respect and disgust his client; but in present circumstances it is possible to assert with entire dignity and propriety



tic duty of keeping the country's industries nor-  
As to the second point, concerning the railways,  
message is as vaguely mysterious as censored war  
Possibly it may imply freights as well as  
es. Considering the extent to which cartage has  
crippled under mobilisation, the Government,  
control of the railways, might very reasonably  
ected to arrange for a considerable reduction on  
inary rates of conveyance for civil purposes, and  
ht not be too much to ask that materials for  
ment contracts should be carried free, or at  
nominal freightage. This is a matter in which  
tentative contractors should be consulted; and,  
way, we should like to hear that the War Com-  
will avail itself of the excellent advice and assist-  
which would no doubt be very willingly rendered  
e National Federation of Building Trades  
yers and other organisations more or less closely  
ted with the building industry.

our readers are aware, we by no means share the  
ism with regard to the building trade which is  
nd there finding lugubrious expression, and is  
no good. Nothing can be said in its justification.  
ad manners and bad policy, and is not justified  
situation. Of course the war has changed the  
s perspective, and, pending the necessary  
stments, a certain amount of hesitancy and  
sion is perfectly natural, but the history of  
crises, as well as the data at present in view,  
ce us that there is no substantial reason to  
end that business in general, and the building  
y in particular, must henceforward assume a  
level of prosperity. Quite the contrary. What-  
may happen on land in the course of this  
ating war, it is perfectly obvious that Britain  
hold the key to the situation as long as she  
ins her naval supremacy, and that inestimable  
age may certainly be taken to imply almost  
ate commercial expansion. If all goes well with  
ure shield," the Navy, we shall get and retain a  
art of our foreign competitors in commerce, and  
ultant expansion must give, in the near future,  
considerable impetus to building. Although  
enterprise is for the moment checked to some  
by the timidity or excessive cautiousness of  
g owners, who are awaiting the turn of events,  
en by a few building contractors who, we are  
e hesitating to sign contracts from fear of rising  
there is, happily, as we have shown in previous  
a very considerable volume of public work to  
d by the time that slackens off, private enter-  
will have recovered courage and confidence, the  
nking conditions will have become familiar and  
working quite smoothly, and, in accordance  
precedent, business will be pursued with  
led vigour. In the meantime, waverers should  
heart the warning of Mr. L. Chiozza Money:  
impossible for the enemy to ruin our business; it  
e possible, however, for the nation to bring a  
deal of unnecessary trouble upon itself through  
on of each individual in cutting down every sort  
nd of activity and trade in a spasm of over-  
sness."

ough we rather object to the blatancy of the  
"War Upon German Trade," under which a  
of the daily press is conducting an inquiry into  
ow suspended business relations of the two  
es, we fully appreciate the advantages of sur-  
the position, and in our next issue we hope to  
to point out the business opportunities of the  
n. For this purpose a large quantity of  
is now being collected, and the result of these  
gations should be found of considerable  
to manufacturers. Traders who desire  
e due advantage of these opportunities

are reminded in "The Times" of last Friday  
that "At the present juncture, at any rate, so  
far as the home market is concerned, it is eminently  
desirable that the public should be acquainted as  
quickly as possible with the names of British and  
Colonial goods to take the place of those of German  
and Austrian origin to which it has been accustomed.  
That is the function of advertising. The meeting of  
advertising experts next week might well devote atten-  
tion to the part advertising should play in demonstrat-  
ing the ability of British manufacturers to fill the place  
rendered vacant by the enforced absence of Austrian  
and German goods. They may be sure that other  
countries are watching the opportunity, and will seize  
it to push their own wares at the earliest possible  
moment." It is a timely word to the wise, and should  
suffice.

Any apprehension that may have been felt that the  
Shakespeare National Memorial Theatre competition  
would be postponed on account of the war are, so far  
as can be ascertained, entirely without warrant.  
Drawings and photographs are, we are officially  
informed, to be sent in to 3a, Dean's Yard, Westminster  
Abbey, on or before September 14, 1914, as originally  
arranged. That, as far as it goes, is very satisfactory,  
and we trust that the competition may mature to  
fullest fruition. Architects, however are complaining  
that the "preliminary step" of inviting the submission  
of "photographs or drawings of important buildings  
erected or designed," with a view to the selection of  
six architects who will be asked to take part in the  
actual competition must tend to the discouragement of  
unknown men. We do not think that this is the  
necessary effect. Unknown men are not absolutely  
excluded by the actual terms, in which it seems to be  
implied that designs made expressly with a view to  
this competition are admissible. But while such a  
design, if it were of striking merit, might conceivably  
gain its author an invitation to compete, this con-  
tingency seems rather remote in view of the intimation  
that a list of "buildings of importance designed or  
erected" may be submitted. Even here a loophole is  
left for the unknown man, but it is an extremely narrow  
one, and it may be supposed that very few young  
architects who are as yet unfurnished with proofs of  
experience in actual execution will hazard this small  
chance of getting through. That, we think, is a pity.  
For so important a work as a national memorial to the  
national poet, we should have preferred an entirely  
open competition, which would have been better for  
the profession and better for the memorial.

Apart from the tremendous amount of human  
suffering which the European War must necessarily  
entail, one of the most saddening of its aspects is the  
demolition of buildings by bombardment. Belgium, as  
we show in our "Enquiries Answered," which appear  
on a later page, is rich in buildings of all periods—  
Gothic, Romanesque, Renaissance, Classic—and that  
many of them must suffer severe damage if not total  
destruction, at the hands of the invading forces is an  
eventuality greatly to be feared. The news that  
Brussels had capitulated without resistance, though  
somewhat discouraging (much as official bureaux may  
deny it) from the military point of view, was,  
nevertheless, received with relief by all who had any  
appreciation for the architecture of the Belgian capital.  
The destruction of Poelaert's magnificent Palais de  
Justice, for instance, is no more to be contemplated  
than the destruction of St. Paul's, in the event, happily  
remote, of an invading force ever reaching London.  
The danger of indiscriminate bomb-dropping is one  
which, of course, has to be faced in times of war; but  
the wilful destruction of great architectural monu-  
ments is a positive crime, and it cannot be countenanced  
by the rules of international warfare.



## HERE AND THERE.

SINCE last I took up a pen to write something for this column, the pistol of an assassin has set Europe ablaze, and there is but one engrossing interest for all of us now—the War! We have developed an insatiable appetite for news. Morning and evening we scan the newspapers eagerly; they furnish desperate information just now; and we are ready to read a whole column for the sake of a few essential sentences. The world's doings, for us, are centred in the European battlefield, and the idea seems almost preposterous that we could take even a cursory interest in anything unrelated to the conflict in progress. Still, even of war news we may have more than a sufficiency, seeing that, though we read so much, we do not get a much better notion of what is taking place. In such troublous times as these we cannot expect to give that quiet study to our professional concerns which would be accorded to them in normal times, but it may prove somewhat of a relief to turn to these other matters, if only by way of contrast with a situation that is so disturbing. We could hardly expect an architect to settle down serenely to the study of the works of Peruzzi, or to seek to discern the subtlety of Greek work, when a horde of soldiery might be rushing down upon his house at any moment. Such detachment of mind is beyond the scope of ordinary life, and belongs rather to that serio-comic heroism which finds expression in the novelist's pages. But it is well to make some attempt in that direction nevertheless.

I believe it is according to the history books that the greatest achievements in the arts have been produced at times of great national stress. Athens was born out of wars, and Rome rose to splendour amid the tramp of her legions: on which hypothesis the Europe of our own era should witness great achievements. Incidentally the war has improved our geography. Before the outbreak of hostilities most people would have been nonplussed if asked to say where the Meuse flowed; Luxemburg would have been as nebulous to locate as the Straits of Magellan; while ninety-nine out of a hundred persons, even including architects who had done the little tour in Belgium, would have spelled Liège with an accent grave instead of an accent acute. So we live and learn.

As I have suggested above, it seems almost an act of treason to turn to any topic which is not concerned with the war, but as this is not a military or naval journal, and as elsewhere there are columns of particulars which are of immediate interest to architects and builders, in so far as the war affects them, I am compelled to turn to what must be regarded as untopical, even at the risk of being unread.

First let me take a little space to correct a certain indefiniteness which attaches to the use of the word "Salon" as applied to the well-known annual exhibition in Paris. Here there are two Richmonds in the field. There is the Salon des Artistes Français and there is the Salon Nationale des Beaux Arts. I understand that there exists something of a rivalry between these two organisations, and to say that such-and-such a person exhibits at the Salon is often not to do him justice, some artists being proud of having their work shown at the Artistes Français, and others at the Nationale. Architecture is always best represented at the Salon des Artistes Français; concerning painting, it is a matter of opinion as to which exhibition claims the higher title; while as regards sculpture, that usually goes to the Artistes Français by reason of the splendid accommodation which is given to it, as was well recognised by those architects who formed part of the English party that went over to Paris at Easter-

time in connection with the Anglo-French Exhibition of Architecture. Rodin, however, when he exhibits always sends to the Nationale.

With some writers who court popular attention rather a foible to dwell on comparisons. At one time it is a comparison between London and Paris, another time it is between the West End and the East End, or again, it may be a comparison of town and country. In these little excursions even the details of our houses have not been neglected, and on more than one occasion the merits and demerits of casement windows versus sash windows have been set on foot. The latest to embark on this subject is Canon Hannay, better known as the author and architect who adopts the pseudonym "George Birmingham." He has the merit of a lively pen, and everything that adds to the gaiety of the profession is welcome, whether we agree with them or not, I may be permitted to make the following excerpt: "To appreciate the Englishman's devotion to beauty, it is necessary to realise the sacrifices which he makes for it, and this can only be done by some one who has lived in a house with casement windows. An old sash window, consisting as it did of two sheets of very transparent glass with a thin bar of wood between them, let in as much light as possibly could be let in through an aperture of given area. A casement window, with its tiny leaded panes and its heavy upright beams, lets in very little light. A sash window, unless we deliberately broke it, kept out the rain. Casement windows have towels, bed-quilts and old blankets laid along the bottoms of them in order to sop up the water which pours through them every wet day; and this is inconvenient. When it is cold the bitter air comes through casement windows even when tightly shut, and blows away our papers as well as giving rise to pneumonia. In summer when everybody is open and wants all the air he can get the casement window offers a chance of opening small square bits of the pane and there, just enough to make an irritable man to wreck the whole structure with a sledge hammer. The old sash window invited you to push it up and you had a wide space of open air in front of you. You cannot look out of a casement window with pleasure. In the first place anything you see is crossed with bars which are destructive of the beauty of the landscape, and in the next place casement windows are generally placed so high in the wall that you cannot look out of them at all without standing up.

The foregoing makes, as I say, lively reading, but it is grossly unfair to casement manufacturers. A casement window can be made thoroughly watertight, and for a certain class of house it is the best possible kind of window to use. It would be easy to cite the advantages of sash windows, not forgetting the matter of rain, but the little troubles that occur when the cord breaks, when the top sash comes down with a run, and the top sash trying essay to move sashes which have been repaired and have got stuck with the heat of the sun. There is, there are bad sashes just as there are good casements. My own taste inclines towards the casement window, because I think it is a more serviceable and convenient arrangement for the majority of garden houses, and what I have seen in the garden city has been very disturbing. But there are some types of work where a sash window is totally out of keeping with its surroundings, both externally and internally, and where the casement is exactly the window which is needed. Canon Hannay's diatribes ought therefore to pass unchallenged.

UBIC



## BUILDERS' PRICES AND SOME OTHER CONSIDERATIONS.

In the present crisis there are a number of matters in connection with architecture and building which should receive prompt and serious consideration. Although the war is as yet only three months old, the building trade, in common with most other industries, is adversely affected, chiefly owing to the increase in the prices of materials.

Builders in particular are anxious to know how the situation stands in relation to the advances which have been made, and whether builders generally have yet made any drastic revision in the pricing of their work.

It is common knowledge that the L.M.B.A. is giving this matter their attention, and the authoritative statement which may be expected from them will doubtless do much to relieve the situation. Contracts which date from August 4 must necessarily be the subject of very serious consideration by architects no less than by builders. The Standard Form of Contract, though the best that has yet been devised for general purposes, is admitted to be far from perfect, and its continued employment without the provision of clauses governing the present situation will probably involve unimagined legal complications at a later date. These practical points and others are helpfully touched upon in a publication which we have received from Mr. J. Quennell, F.R.I.B.A., who writes as follows: "The attitude of the Master Builders in pricing their work as to date from August 4 seems logical, and if the rise of prices contingent on the war are arranged on the basis of mutual endeavour on the part of architect and builder, and with a determination that the best be done, a bad job, and prices kept down, then we may carry on."

Fortunately, there is a disposition in official circles to regard this as a 'try on' by the builders. One considers how largely a building is made up of materials that come from all parts of the world, and in the area of the war, and the impossibility of limiting its duration or extent, it is difficult to see how builders could take up any fairer attitude. The alternative is to guess and add anything up to the cost for war risks.

Consider the appalling effect of a destroyer raid on the east coast watering place, and it is quite a possibility. What would happen to prices in this contin-

A committee might be formed of architects, engineers and quantity surveyors who would, acting in conjunction with the Government, advise on all legislative matters. Such regulations would be valuable, especially in relief work.

Analysts should urge that where possible house-owners put their houses in order. Decorative and structural works should be done where possible.

Institute Form of Contract, which is admittedly defective, should be promptly brought up to date with special clauses suitable to the crisis, or the war will have a happier time than they need for our differences later on.

The Government should be advised that architects need a certain amount of sustenance and be asked, if possible, to employ architects on relief works.

There is a great danger at the moment that local authorities may start building cottages without any consideration of the town planning side of the question. It is conceivable that two or three fields will be divided up and cottages built wholesale and without any regard for the amenities of the district. Panic building without any consideration for all that is held to be right by town planning can only result in slums for the future.

The report which was issued by the Depart-

mental Committee appointed by the President of the Board of Agriculture to report on buildings for small holdings, this was very evident. The main endeavour was to find the model plan for a cottage. This was assiduously sought from landlords, architects, and agents, and the keynote of their endeavour was to get a sort of stencil plate for a cottage which could be rubbed off and produced in large quantities by any official.

"The report takes no heed of the town-planning considerations, and makes no note of newer forms of traction which may alter conditions. It does not realise that these altered conditions may so change the mode of life that the stock pattern cottage may not be suitable in a few years."

"There is a great danger that this report will be adopted and cottages built wholesale; meanwhile the architect, having given his plans, may find his occupation gone."

## THE PLATES.

### *Butchers' Shop, Liverpool.*

TO have rendered architecturally so unpromising a subject as a butchers' shop-front is a notable achievement. Messrs. Campbell and Adams, the architects of Messrs. M. Goldstein and Sons' shop in Leece Street, Liverpool, have solved very neatly the chief problem of shop-front design—that of combining practical utility with architectural expression.

### *Royal Palace, The Hague, Holland.*

The Royal Palace in the Haag Staat, at The Hague, has the quiet dignity which is only seen in perfection when a Classical style is employed. Perhaps the pediments over the windows are rather over-accentuated. The bronze equestrian statue of William the Silent is rather unfortunately placed, and in our country such statues usually face the opposite direction.

### *Louis XIV. Vase, Versailles.*

Thoroughly infused with the Greek spirit, which is manifested in the figures even more than in the other decorative details, this vase is nevertheless distinctive of the Louis Quatorze period by the over-elaboration that ultimately developed into a wild extravagance of which, however, the designer of the present example cannot be justly accused. He is exuberant, but has kept well within the bounds of decorum.

### *Composition of the Ionic Order.*

Mr. W. H. Challiner's clever and graceful composition of the Ionic Order recalls, by association of ideas, Ruskin's mad freak of expunging Ionic as being unworthy the name of an order! To-day it is probably the most popular of the Orders, and Mr. Challiner's delightful composition is an excellent *apologia* for the preference. Mr. Challiner is a student of Liverpool University.

### *Antique Masks for Theatres, etc.*

It is remarkable that the metal masks used with megaphone effect before the vast open-air audiences in the ancient Classical drama should have persisted down to our own day as almost indispensable features in the decoration of the theatre. The plate shows a very adaptable selection.

### *Working Drawing: Entrance Doorway.*

Mr. Walter McQuade made this drawing of the entrance doorway to a house at Nutley, New Jersey, of which the architects were Messrs. Armstrong and De Gelleke.

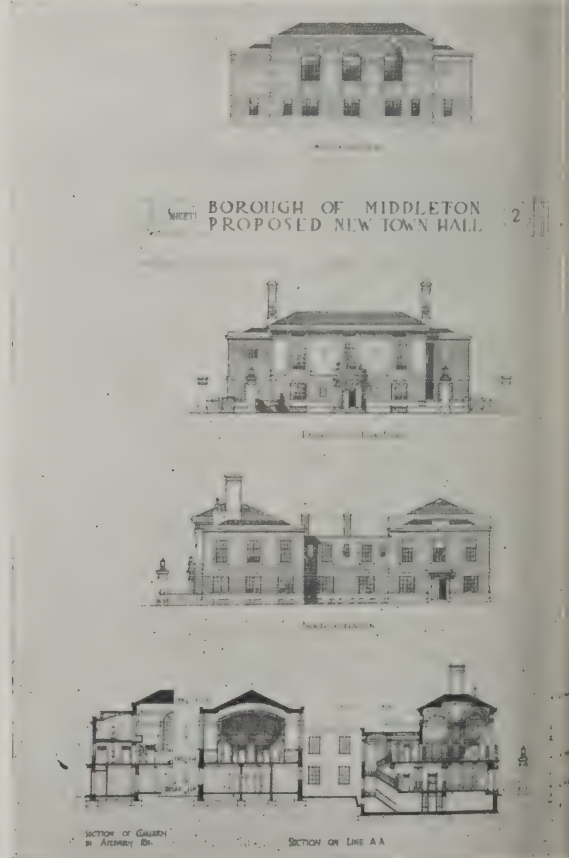
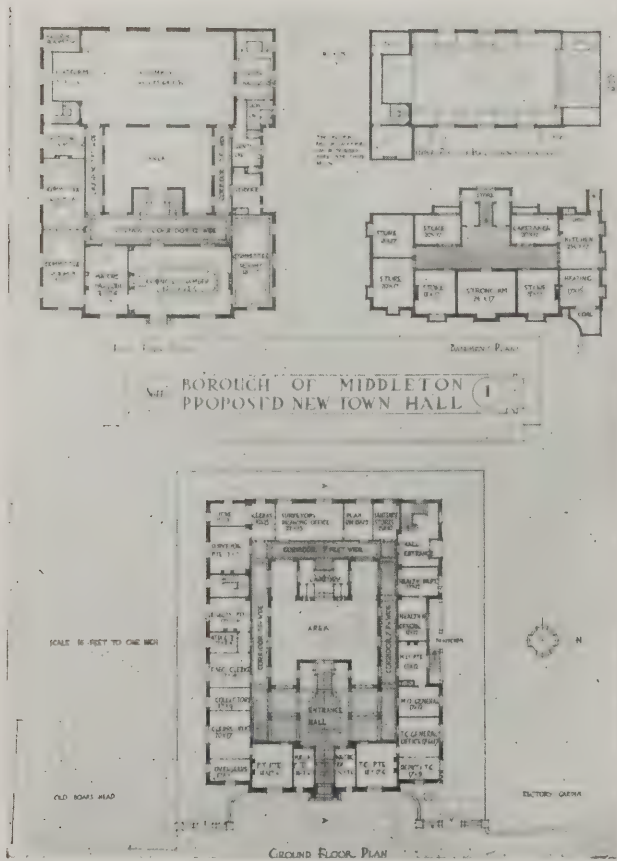
### *Strawberry House, The Mall, Chiswick.*

This house, apart from being a delightful example of its type, suggests motifs which might well be imitated to-day. Note the apt use of ironwork and the neat treatment of the window blind boxes.





Perspective View from the Jubilee Park.



As announced in our last issue, Mr. Hastwell Grayson, M.A., F.R.I.B.A., of Liverpool, the assessor in the above competition, has awarded premiums as follows:—1st. (£100, to merge into the 5 per cent. payment on the work), Mr. Alick G. Horsnell, of London; 2nd (£50), Messrs. Wolstenholme, and Thornely, of Blackburn; 3rd (£25), Messrs. Clapham and Symons-Jeune, of London. Above we illustrate the selected design which Mr. Horsnell is to be heartily congratulated. Our special critique and sketch plans of the other premiated designs are unavoidably deferred until next week. In all, 107 designs were submitted, out of which the assessor selected eight for further consideration. The Town Council is prepared to spend on the building a sum of £18,000, to include £1,000 for furniture and £300 for clerk of works.

MIDDLETON TOWN HALL COMPETITION: FIRST-PREMIATED DESIGN. ALICK G. HORSNELL, ARCHITECT



# TECTURE AND THE WAR: CURRENT CONTRACTS IN HAND.

to restore public confidence in the building trade, the following leading architects, from patriotic motives, have been good enough to give up their current contracts. It is proposed to publish a column open week by week, and architects in all parts of the country are invited to contribute to it by giving similar lists of works in hand. In the following, the contract price, where available, is given in pounds.

*Mr. H. Brierley* (York), writes:—

I state that many of my clients are displaying patriotism in proceeding with building work, and are giving special facilities for doing so during the present crisis.

*Buckland, Haywood and Farmer* (Birmingham):—

Primary Schools, Beckenham, J. L. Woodhams, Bromley, Kent, contractors (£14,999). St. George's College, Oxford, W. Moss and Sons, Loughborough, contractors (£22,837). Alterations and additions to Mark's Schools, Birmingham, H. H. Crump, Birmingham, contractor (£1,450). Alterations and additions to the Brades Steel Works, Oldbury, W. Oldbury, contractor (£1,554).

*Guy Dawber, F.R.I.B.A.* (London, W.C.):—

Home Dene, Bournemouth, large addition, and Gillow, contractors. Lady Cross Lodge, Bournemouth, large addition, Chapman, Lowry, and Grayshott, builders. Hamptworth Lodge, Bournemouth, large house nearing completion, White and Son, Basingstoke, builders. The Green, Milborne Port, moderate sized new house, Pittard and Son, Bristol, builders. Cottage at Cockermouth, T. Armstrong and Son, South, builders. Oakwood Park Golf Club, Maidstone, nearing completion, G. E. Wallis, Maidstone, builders. Lydney Park, Gloucestershire, lodges, Walker and Slater, Derby. Itton Court, Monmouthshire, village hall and cottages, Walker and Slater, Derby. The Drewitts, Hayward's Heath, cottages and buildings, S. Knight and Co., Cuckfield. And many other smaller works.

*Charles Heathcote and Sons* (London, E.C.):—

At the present moment we have in hand buildings valued on account of the war to the value of over £1,000,000. Outside this figure we are sorry to say that many buildings have been stopped and also the work for at least three others.

It is needed to restore the building trade to its normal activity is the action of the workpeople. We represent a building where the electricians, plasterers, and plumbers are on strike, and in which there are engaged in these trades about 100, including labourers. We have a letter dated 10th from the Trades Federation of the district in which building lies saying how desirous the men are to get as many men back to work as possible in the present grave crisis of national honour being. The same letter asks that we may influence to get them back, but adds that the men are non-union men and that the men who are anxious to get back to work 'will not go back unless union men now employed.' That shows how the Trades Federation is desirous of helping the men who are out of work in 'this grave crisis.' The way we look at the matter is this. We do

not care whether the men are non-union men or not so long as they do a decent day's work for a decent day's wage, and we have not the slightest intention of interfering in the way proposed. We only mention this to show where, in our opinion, the difficulty lies in connection with the building trade."

*Arthur Hill, F.R.I.B.A.* (Cork):—

Munster and Leinster Bank, Cork, J. Sisk, builder (£35,000). Residence, Castle Townshend, Co. Cork, J. Sisk, builder (£1,500). National Bank, Co. Wexford (£1,000). North Infirmary, Cork, J. Delany, builder (£2,700).

*Messrs. Richardson and Gill, F.F.R.I.B.A.* (London, W.C.):—

Moorgate Hall, Moorgate Street, London, E.C., J. Chessum, contractor (£75,000). Fulwood's Rents, office premises, Holborn (going to contract). Residential chambers, 10, Berkeley Street, W. (going to contract). New offices for Technical Journals, Ltd., reconstruction, W. F. Blay, Ltd., contractors (£2,000). New theatre and shops, Torquay (in conjunction with Mr. F. G. Moore, M.A., B.Sc.), quantities in preparation (£13,000). Country house at Cleethorpes for Mr. J. Southern. Bowman and Son, Stamford, builders (£4,000); house at Sunningdale for Sir Bruce Hamilton. Manor House, Bradrich, repairs and additions, Nicks Bros, builders. Duchy Hotel, Princetown, Cornwall, additions. Two Bridges Hotel, near Princetown, additions, to be started shortly. Two blocks of cottages, Postbridge, Dartmoor, John Halfyard, builder. March Farmhouse, Landulph. Farmhouse, Bodrigan, Cornwall, F. Rothery, Saltash, builder. Duchy of Cornwall offices, Liscard, F. Rothery, Saltash, builder. Manor Farm and cottages, Stoke Climsdon, for H.R.H. the Prince of Wales. Country mansion for Captain Cecil Banbury, Ashdown Forest. Parish room, Stoke Climsdon. Cottage Lodge, Frenchbeer, Dartmoor, Ellis and Underhill, builders. New buildings in Oxford Street, London. Pedestal for Queen Victoria Monument, Vancouver. Monument to Lord Mount Stephen, Ontario.

*Mr. A. Saxon Snell, F.R.I.B.A.* (London, W.):—

Charing Cross Hospital, alterations and fitting up old wards, etc., Higgs and Hill, Ltd., contractors (£7,354); also emergency work for War Office (about £1,000). St. Marylebone Parish Workhouse, alterations, Woolaston and Co., contractors (£948 10s.). Willesden Parish Infirmary, Nurses Home (nearly completed), subway, etc., Wm. Moss and Sons, contractors (£6,273). St. Marylebone Schools, Southall, painting works, W. Stamper, contractor (£627). Fulham Parish Infirmary, painting works, G. McArthur and Co., contractors (£873). Southwark Union Infirmary, painting works, C. Withers, contractor (£758 14s.).

*Thomas Worthington and Sons* (Manchester):—

House at Over Peover, L. Brown and Sons, builders. Manchester University Arts Building, Macfarlane and Sons, builders (£32,500). Arlosh Hall M.C. College, Oxford, Benfield and Loxley, builders (£9,200). Gawsworth Hall, Macclesfield, L. Brown and Son, builders (£5,000). House at Prestbury, J. Massey and Son, builders (£2,750). House at Boars Hill, Oxford, Organ Bros., builders (£664). House at Denbigh, Cooke and Lloyd, builders (£2,500). Massey Lodge, Tarporley, Collins and Smart, builders. Barnes Convalescent Hospital (£1,000). Ardwick Industrial School. Cheadle Royal Nurses' Home.



## THE ARCHITECTS' WAR COMMITTEE.

AT the first meeting of this Committee, which was held in the afternoon of August 18, at the premises of the Royal Institute of British Architects, 9, Conduit Street, W., in the unavoidable absence of the President of the R.I.B.A. owing to a domestic bereavement Mr. H. V. Lanchester took the chair. The chairman stated, on behalf of Mr. Ernest Newton, that in accordance with the resolutions passed at the representative meeting of the architects held at the R.I.B.A. on August 14, the following gentlemen had been invited to serve upon the Committee:

President: Mr. Ernest Newton, A.R.A. Vice-Presidents: Mr. A. W. S. Cross, Mr. George Hubbard, F.S.A., Mr. H. V. Lanchester, Mr. J. Alfred Gotch, F.S.A. Hon. Secretary, Mr. E. Guy Dawber. Presidents of Allied Societies: Mr. A. H. L. Mackinnon, Aberdeen Society of Architects; Mr. G. Salway Nicol, Birmingham Architectural Association; Mr. G. C. Awdry, Bristol Society of Architects; Mr. J. Archibald Lucas, Devon and Exeter Architectural Society; Mr. G. P. K. Young, Dundee Institute of Architects; Mr. T. Forbes MacLennan, Edinburgh Architectural Association; Mr. John Watson, Glasgow Institute of Architects; Sir William Portal, Bart., Hampshire and Isle of Wight Association of Architects; Mr. R. Caulfeild Orpen, A.R.H.A., Royal Institute of the Architects of Ireland; Leeds and Yorkshire Architectural Society; Mr. W. A. Catlow, Leicester and Leicestershire Society of Architects; Mr. J. Alfred Gotch, F.S.A., Northamptonshire Association of Architects; Mr. R. Burns Dick, Northern Architectural Association; Nottingham and Derby Architectural Society; Mr. A. F. Watson, Sheffield Society of Architects; Mr. Glendinning Moxham, South Wales Institute of Architects. President of the Architectural Association: Mr. Maurice E. Webb. Vice-Presidents of the Architectural Association: Mr. H. Austen Hall, Mr. G. Leonard Elkington. Hon. Secretary of the Architectural Association: Mr. H. P. Fletcher. President of the Society of Architects: Mr. Percy B. Tubbs. Vice-President of the Society of Architects: Mr. E. C. P. Monson, Mr. R. Goulburn Lovell. Hon. Secretary of the Society of Architects: Colonel F. S. Leslie, R.E. Also Messrs. T. W. Aldwinckle, J. Macvicar Anderson, F.R.S.E., Herbert Baker, Reginald Blomfield, R.A., Walter Brierley, F.S.A., Sir John Burnet, R.S.A., Walter Cave, Basil Champneys, H. Chatfeild Clarke, Max Clarke, Thomas E. Collicutt, T. Edwin Cooper, Claude W. Ferrier, the Right Hon. the Earl Ferrers, F.S.A., H. L. Florence, Sir Ernest George, A.R.A. Walter Gordon, W. Curtis Green, L. Rome Guthrie, Edwin T. Hall, Henry T. Hare, G. T. Hine, Gerald Horsley, Sir Thomas Jackson, Bart., R.A., Ralph Knott, Sir Robert Lorimer, A.R.S.A., Edwin L. Lutyens, A.R.A., Ian MacAlister (Secretary), Geoffrey Norman, C. Stanley Peach, Sydney Perks, F.S.A., W. E. Riley, W. Alban Scott, M.S.A., Herbert Shepherd, John Slater, Lewis Solomon, Sir Alexander Stenning, J. E. Still, Leonard Stokes, Sir Henry Tanner, C.B., S. D. Topley, T. Wallis, M.S.A., Paul Waterhouse, Sir Aston Webb, C.B., K.C.V.O., R.A., H. A. Welch, Wm. Woodward, F. H. Wrench, John E. Yerbury.

It was resolved that the Committee be called "The Architects' War Committee," and that the following members of the

Committee be appointed as honorary officers: Chairman, Mr. Ernest Newton, A.R.A., P.R.I.B.A.; Vice-Chairmen, Mr. George Hubbard and Mr. Percy B. Tubbs; Hon. Secretary, Mr. C. Stanley Peach.

The Secretary then submitted to the Committee the following resolutions passed at the representative meeting of the profession on August 14:

1. That this representative meeting of the architectural profession offers its services to the Government in whatever capacity they can be most useful at the present time. Also that, subject to the consent of the Council, the R.I.B.A. offers to the Government the use of the Institute's ground floor galleries, and that an intimation giving effect to these offers be forwarded to the proper quarters.

2. That the architects who are in a position to assist young architects who are already embodied in, or who contemplate joining the forces, be asked to send their names to the Secretary of the Institute and state what they are prepared to do.

3. That a subscription list be opened to enable architects to contribute as a body to the Prince of Wales's National Relief Fund.

4. That a committee be appointed to deal with the matters connected with the foregoing resolutions, this committee to have power to add to its numbers and to form such organising committees as may be required, the committee to report to the R.I.B.A. Council from time to time.

5. That the President of the R.I.B.A. be empowered to form the committee.

The Acting-Chairman stated, on behalf of Mr. Newton, that the question of the use of the R.I.B.A. galleries would be discussed at a meeting of the R.I.B.A. Council the same afternoon. He also read the following statement drafted by Mr. Newton: "I hope to have an interview at an early date with Mr. Herbert Samuel, M.P., to discuss the question of the special employment of architects during the war. Mr. Samuel has already informed me that he will be glad to avail himself of our services if occasion arises. With regard to Resolution No. 3, I propose this afternoon to ask the Council of the R.I.B.A. to make a substantial donation immediately to the Prince of Wales's Fund. With regard to the distress which may arise in the profession owing to the war, I propose to summon a special meeting of the Architects' Benevolent Society Council to consider the situation and, if it is found necessary, to send out a special appeal to the profession to contribute to a special war relief fund for the benefit of architects and those dependent upon them who may be in difficulties owing to the War.

It was resolved that the following gentlemen be invited to act as an Executive and General Purposes Committee, with power to add to their numbers: Chairman, the President; Vice-Chairmen, Mr. George Hubbard and Mr. Percy B. Tubbs; Hon. Secretary, Mr. C. Stanley Peach; Mr. H. V. Lanchester, Mr. J. Alfred Gotch, Mr. Maurice E. Webb, Mr. H. Chatfeild Clarke, Mr. Claude Ferrier, Mr. Edwin T. Hall, Sir Aston Webb, Mr. W. E. Riley, Mr. Ralph Knott, Mr. L. Rome Guthrie, Mr. Paul Waterhouse, Mr. E. T. Richmond, Mr. H. M. Fletcher, and all the provincial members of the General Committee to act as correspondents for the Executive Committee, and that all suggestions received from architects and others with regard to the action to be taken by the profession should be referred in the first instance to this Committee for consideration.

The Acting-Chairman stated that it was proposed to ask the R.I.B.A. Council to afford all the necessary secretarial and

clerical assistance to the Architects' War Committee and its Sub-Committee.

It was then resolved that the Executive and General Purposes Committee be instructed to draft and despatch to the Hon. J. Pease, M.P., who has been trusted by the Cabinet with the receiving all offers of assistance in connection with the war, a letter embodying a general offer of help expressed in the following resolutions.

It was resolved that the following gentlemen be invited to act as a Selection Committee or Sub-Committee with power to add to their numbers: Sir John Burnet, Sir Aston Webb, J. Alfred Gotch, Colonel F. S. Leslie, E. Guy Dawber, Leonard Elkington, Reginald Blomfield, Max Clarke, H. A. Welch, Sydney Perks, T. Edwin Cooper, Wm. Woodward, E. Yerbury, Henry T. Hare, C. John Slater, R. Goulburn Lovell, C. Horsley, Alan E. Munby, and all provincial members of the General Committee to act as correspondents for the Selection Sub-Committee, and that the following memorandum prepared by the Chairman be adopted as a basis of work of this Sub-Committee, with report to the Executive and General Purposes Committee:

This Sub-Committee would be required to compile lists of architects, with details of their qualifications, so that we may be in a position to give useful information to the Government or to any of its departments in connection with the war arising out of the war.

The Sub-Committee would also be required to set up an information bureau to help in the selection of architects who are called out for service in the manner suggested by Resolution No. 2.

In doing their work they would be guided by the advice and knowledge of the provincial members of the General Committee, who would be asked to act as correspondents in dealing with enquiries from various districts.

It was resolved that the Executive and General Purposes Committee be instructed to open a subscription list to enable architects to contribute as a body to the Prince of Wales's National Relief Fund, or (b) a special fund.

It was resolved that the following gentlemen be invited to act as a Benevolent Sub-Committee with power to add to their numbers: Sir Robert Lorimer, Sir Alexander Stenning, Sir Ernest George, Sir Henry Tanner, Sir Thomas Jackson, A. W. S. Cross, H. W. Wills, L. E. Hall, H. M. Fletcher, E. C. J. M. Herbert Baker, Walter Cave, H. Collicutt, Edwin L. Lutyens, L. Stokes, and all provincial members of the General Committee to act as correspondents for the Benevolent Sub-Committee.

The Acting-Chairman stated that in consultation with the War Architectural Association had been decided at the present to take no action in regard to their military training proposals.

It was finally resolved that the Executive and General Purposes Committee be instructed to consider the following: (a) The desirability of issuing a circular to the public an appeal on building work to the utmost during the progress of the war, and the desirability of urging the Government to make arrangements to allow the carrying of building materials.



## QUESTIONS ANSWERED.

### Painting Radiators.

(Streatham, S.E.) writes: "What kind of paint should I specify for radiators that have grown dingy? Oil paint, I suppose, is useless, but there is an alternative to the silver-like tone of aluminium paint, which is the only alternative so far as I am aware. How is aluminium paint?"

Aluminium is used, a special heat-resisting paint must be specified. The paint should not be applied direct to the radiator, which should be treated with "baking japan" and then with "Do not use any oil except what is in the ground white lead. If the aluminium paint is objected to, powdered or liquid bronze paints of tints are available, and these paint pigments may be employed. They are not mixed with oil, but with "baking japan," with baking japan as a final coat. "Baking," above, is the term applied to the process of resisting great heat, and is used for "stoved" goods. Aluminium contains about 91 per cent. aluminium, 6 per cent. silica, 1 per cent. iron, 1½ per cent. silicate, 1 per cent. In manufacturing it, gas or air is blown under pressure into the molten metal, which is vigorously stirred, and then poured in setting. This powder is then run through sieves and dried. About 2 lb. of the powder is mixed with one gallon of varnish, 5 gallons turpentine, ½ gallon of white varnish, 4 oz. palest terebene, 1 lb. of carbonate of magnesia, the ingredients are allowed to settle, and the clear liquid is then drawn off. Obviously this is a commercial process, and should not be attempted except on a commercial scale. No trouble in the matter of painting radiators may be avoided by consulting a reputable firm of paint makers, who are advertising in this journal, and are always ready to give the best advice and choice of paint.

### Belgian Architecture.

VINE (Leeds) writes: "Your most interesting article on the architecture of Brussels, in the August 12, convinces me that Belgium, on the larger subject of the architecture of Belgium, would be very interesting at a moment when almost the only memory of our gallant allies is being forgotten in warfare. If you are not prevented by much space to the subject, I will kindly indicate, in your 'Questions Answered' columns, the most interesting buildings in Belgium that are still standing." "Of destruction."

Most noteworthy buildings of Belgium are in Antwerp, Mechlin, Louvain, Alost, Audenarde, Ghent, Bruges, Courtrai, Tournay, Mons, Namur, and Liège. Clearly a mere list of buildings would take up a great deal of space, and only a few of the most interesting can be mentioned here.

We hoped that the cathedral of Antwerp, the interesting church of St. Rumbaut, which have escaped destruction. A very complete Gothic choir, begun in 1280, is the glory of the cathedral. The church at Tongres dates from the twelfth century. It has interesting Romanesque and Gothic features. At Liège are the Romanesque and Gothic churches of St. Croix, St. Jean, and St. Jean. Not far from the battle of Waterloo are im-

posing remains of a Romanesque abbey church of the early part of the thirteenth century. St. Martin, Ypres, about 1220, is considered to be one of the purest examples of thirteenth-century Flemish Gothic; it shows strong French influence, whereas most of the chief buildings of the country reveal the Teutonic origin of the people. At Mechlin the cathedral of St. Rumbaut is for the most part of the fourteenth century, with choir and west tower of the fifteenth century. Very similar in character is St. Pierre, Louvain, 1425. In Brussels, Notre Dame de la Chapelle is early thirteenth century, with nave and west towers of 1483; Rubens designed its Rococo altar. Notre Dame des Victoires (name of good omen!) is of 1304. These churches are venerable mainly for their age, but the Cathedral of St. Gudule, which was begun in 1220 on the site of an earlier Romanesque chapel, is of real merit and has priceless windows painted by Bernard van Orley.

Ghent has its St. Jacques, founded in 1100, though of this date only the towers remain; St. Michel, early fifteenth century; St. Nicholas, of the tenth century, Romanesque in mass, but with its character destroyed in the detail; St. Bavon, 1352 to 1411, with later additions, remarkable for the richness of its Late Gothic tower. Other notable churches of mediæval dates are: St. Waudru, Mons, 1450; St. Gertrude, Louvain, with remarkably elaborate choir-stalls; St. Brice and St. Quentin at Tournay; Notre Dame, Ypres; St. Martin, Hal; St. Loup, Namur; St. Vincent, Soignies, the oldest religious structure in the country, dating from 965; the Chapel du Saint Sang, Bruges, 1150, showing traces of Oriental influence; Notre Dame (thirteenth century), in the same city; Bruges Cathedral, which is the oldest example of mediæval Flemish brickwork; the cathedral of Tournay, of which the round-arched Romanesque nave, with its 200 or more beautifully carved and wonderfully varied capitals, dates from 1066, offers, as a whole, a complete epitome of the development of the Flemish-Romanesque and Gothic styles.

Belgian belfries are famous, the best known being, of course, that of Bruges, which is considerably more than 300 ft. high. That at Ghent is, in part, of the fourteenth century, that at Tournay of the thirteenth, and there are belfries of lesser architectural value at Mons, Courtrai, Louvain, and Mechlin. Of the rather scanty Renaissance work, the earliest example (1495) is the Hôtel des Biscayas, Bruges, where also are a sixteenth-century Palais de Justice, and the restored Court of Record (1534). At Antwerp, the town hall (1554) is the only notable Flemish town hall that departs from the Flamboyant Gothic style; the Plantin-Moretus Museum of Printing is a well-preserved mansion of the sixteenth century, and there are several guild-houses of the sixteenth and seventeenth centuries.

Of modern work, the Palais de Justice at Brussels, which has been very fully illustrated in this Journal, is incomparably the most noteworthy example, and is possibly the most masterly building in Europe. Its architect, Joseph Poelaert, who was a native of Brussels, where he was born in 1816, did not live to see its completion, as he died in 1879, and the Palais was inaugurated in 1883. In Brussels, also, the Hôtel de la Banque, the Palais des Beaux-Arts, and the Bourse all show the modern French taste that is now predominant in Belgian architecture.

[Since the above was written, Brussels has been occupied by the Germans.]

## SPECIAL LEGAL REPORTS.

### Council Schools and the London Building Act.

*Daubney (District Surveyor) v. Akers and Company, Limited.*

July 31. Tower Bridge Police Court. Before Mr. A. E. Gill.

In this case the District Surveyor summoned the contractors for not having given him the usual notice with respect to certain building work at a Council school in Southwark Park Road. It appeared that he had been in communication with them and the London County Council from January to June, 1914, urging them to give notice, but without result. The London County Council defended the case on behalf of the contractors, whom they had instructed not to give notice.

The following is a summary of Mr. Gill's decision.

Under the Education Act (Administrative Provisions), 1911, "any provisions in any local Act dealing with the construction of new buildings" do not apply "in the case of any new buildings" so approved. If, therefore, the buildings in question in this case are "new buildings," the defendants are under that Act exempt from serving a building notice. The work consisted of: (1) Certain alterations made to an old building; (2) the addition of a new wing. The extension consists of a corridor, with class-rooms opening off, and is connected with the original building by an opening cut in the external wall of the latter so as to form a continuous passage. It is contended that the extension is a "new building" within the meaning of the Act. The term "new building" in this section must, Mr. Gill thought, be either construed in its natural sense or explained by reference to the London Building Acts. By the London Building Act, 1894, section 5 (6), the term "new building" is defined "to mean and include," *inter alia*, "Any space between walls and buildings which is roofed or commenced to be roofed after the commencement of this Act." It has been contended that this definition covers the case of the new wing. Mr. Gill did not think that those words could apply to an addition. Otherwise it is difficult to understand how any addition can escape being included in the category of new buildings. But the London Building Act, 1894, clearly distinguishes between "new buildings" and "additions" to old ones. Additions are placed on the same footing as alterations. Whether a building is a new building or an addition to an old one must be a question of fact and degree.

In Mr. Gill's opinion whether the expression "new building" in the Education (Administrative Provisions) Act, 1911, section 3, is construed in its natural sense or by reference to the London Building Act, the extension of the infants' department is not a new building, but an addition to an old one; and the defendants were therefore not exempt under that Act from serving a building notice in respect to it. However this may be, it is admitted that the defendants were not exempt under that Act from serving a building notice in respect to the alterations to the old building. It is, however, contended that apart from the Act of 1911, the defendants were not liable to serve a building notice on the following grounds. It is contended: (1) That by section 201 (5) of the London Building Act, 1894, the building in question is exempt from the operation of Parts VI. and VII. of the Act as being "Public Building" "belonging to" or "occupied for public purposes by the County Council of London," as by section 5 (27) "public



building" means "a building used or constructed or adapted to be used as a . . . school"; and (2) that although section 145 which provides for the service of a building notice is not included in Parts VI. or VII., the defendants were not liable to serve a notice because in the particular facts of this case the District Surveyor had no duties to perform. It is pointed out that the exemption from Parts VI. and VII. relieves the District Surveyor of all duties in respect to materials and construction. As to the other parts of the Act, it is urged that the buildings are remote from the street. No question of building line in fact arises. The elevation of the roof of the old building has not been raised. The addition has no storey above the ground floor. No question of height therefore arises. As to the first point Mr. Gill was of opinion, but with some hesitation, that the exemption under section 201 (5) applies. The second point appeared to him to have been decided against the defendants by the joint effect of the cases *London County Council v. District Surveyors' Association* and *Willis—73 J.P. 291*—and *Galbraith Brothers v. Dicksee, 74 J.P. 348*. In the latter, *Alverstone, C.J.*, observes: "Mr. Lush has said that in this particular case he (*i.e.*, the District Surveyor) would have nothing to do. That may be perfectly true; but it does not follow that because he has nothing to do in a particular case he will have nothing to do in any case." And further on: "The Surveyor has to keep the eye of a watchdog on what is going on." It is to enable the District Surveyor to exercise this supervision that notice must be served, and it is not an answer that in a particular case such as the present he may have nothing

to do but to ascertain the fact that no breach of the Building Act is involved in the work.

The magistrate inflicted a nominal penalty of 20s., with £15 15s. costs.

#### AN AMERICAN ARTS BUILDING.

The building shown in the accompanying illustration has been erected at Bar Harbour from the designs of Mr. Guy Lowell, an ex-student of the Massachusetts Institute of Technology. Last year, it will be remembered, Mr. Lowell won the New York Court-house competition with a wonderfully powerful and arresting design, which was illustrated in this journal.

"The Building for Arts," as the work shown herewith is somewhat clumsily called, consists of a large hall which, equipped with a good stage, is adapted both to dramatic and musical entertainments. Outside, to the left, an open amphitheatre has been provided, one side of the building forming a porticoed stage, and a pine-clad slope to the rear acting as an encircling foyer. The character of the situation, no less than the ideals of the founders, greatly influenced the architect in his design, which, though it cannot be said to resemble any particular example of classic art is nevertheless thoroughly imbued with the classic spirit.

The treatment of the spaces on either side of the colonnade is rather novel. The small enclosed Corinthian order seems to be introduced without any particular necessity; but the rectangular panels above form very attractive features.

#### THE INCREASE IN SHIPPING RATES.

The extraordinary and altogether warranted advance in shipping rates commented upon in our last issue have since received from Messrs. M. Callender and Co., Ltd., an interesting communication.

"Much has been said lately in newspapers and elsewhere about the buying of food supplies and the shortage which some unscrupulous speculators have taken of the declaration that they raise their prices immediately, therefore, can be said of certain companies who are increasing their freights by 10, 30, and even 50 per cent. and this in spite of the Government guarantee of war risks? We have heard from one of the shipping lines that their rates are increased 100 per cent., and at the same time they inform us that the vessel referred to is covered for war risk in approved societies, just as if the shipowner is concerned with anything other than the proper insurance of his goods. It is perhaps reasonable to expect a slight increase to cover increased costs to the seamen for the extra risk, but we fail to see what justification there is for increasing the rate 100 per cent., seeing that the Government guarantees 80 per cent. of all insurances. Another big firm of marine underwriters write:

"It is very evident that the shipping and the banking communities have gone a long way towards facilitating the carrying on of industry and



THE BUILDING FOR ARTS, BAR HARBOUR, U.S.A. GUY LOWELL, ARCHITECT.



ment. We think that the way in which the situation has been handled by the Government should give traders the confidence that would enable payment obligations to be made with the least possible delay. The circulation of money will be maintained. It seems that the overseas trade should be at a time like this by the increase in freight that have taken place, from 33 per cent. to 50 per cent. It is quite to be understood that the increased cost cannot be avoided, but is contrary to the spirit of the Government's action in endeavouring to keep trade routes open. We think it is in the best interest of the whole country if every member of it would do his work, duties, obligations and habits in as normal and easy a way as possible. If this were the case it would lead to the dislocation and distress."

## AR AND THE BUILDING TRADE.

is the intention of the provinces, and of London, to push on with work with all possible speed is shown in the following reports, which have been received during the past month from special representatives and various parts of the country:

*F. Ronald Sample* (Hon. Secretary of the Yorkshire Architectural Association) writes:

There is apparently no cessation of work in the country up to the pre-war level, and architectural work is proceeding in the usual manner.

### *South Wales Representative*

In Wales both private employers and local authorities are showing their interest by doing their utmost to prevent unemployment. In Cardiff the Co-operative Wholesale Society are giving a priority in expediting their new building on the Victoria Street. One hundred and twenty men are already engaged on the site, and an additional hundred are being employed. Steps are being taken with a view to hastening the proposed extension of the Birmingham waterworks, near Cardiff, already decided on, and negotiations have been set on foot for proceeding with afforestation schemes in the mountains of Wales. These centres are specially selected as being conducive to the stoppage of work in the districts where stoppage of work is likely to occur. The Cardiff Building Committee has agreed, with the sanction of the Local Government, that the corporation should proceed with the construction of a service reservoir at the Heath, and of water filters at the same place. This is estimated to cost £20,000. The Cardiff Distress Committee have begun work in hand amounting to £3,000 in value, including £5,000 for large works and the erection of public houses, and the Council is putting in hand all work for which statutory powers have been secured.

*Manchester Representative* writes: The present state of suspense the result of the condition of the building industry around Manchester are very serious, but there is every reason to believe that everything will be done to

allow building work to go on as normally as possible. One of the large contractors says that so far of all his jobs only one small private house has been stopped, and a leading architect says that all his jobs are continuing as usual.

*Messrs. C. Jennings and Co.*, of Bristol, inform us that their works are running full time manufacturing woodwork of every description as usual. Their depots in various parts of the United Kingdom are open to supply timber and woodwork of all kinds, the firm holding large stocks of timber and plywood and manufactured woodwork ready for prompt despatch for home or export.

*Mr. F. Higgs* (of F. and H. F. Higgs, builders and contractors, of Herne Hill, S.E.) kindly gives the following list of works in hand:

Motor factory, North-West London; residential flats, West London; secondary school extensions, South London; rebuilding business premises, West Central London; alterations to shops, etc., West Central London; sub-foundations, piling, etc., for heavy engines, West Central London; brewery extensions, East London; filter beds, engine house, etc., Surrey; alterations to country house, Surrey. One or two of the jobs are approaching completion, but the remainder are in full swing. In addition, arrangements are pending to proceed with the following, subject to agreement as to increase of prices: school building, Surrey; residential flats, West Central London.

## THE ELECTRICAL INDUSTRY AND THE WAR.

The interesting forecast with respect to the effect of the war upon the electrical industry, published under "Electrical Notes" in our last issue, has already received substantial confirmation. There can be no doubt that the trade of this country must be greatly stimulated as a result of the elimination of German competition; and it is understood that electrical manufacturers (and indeed manufacturers generally) are already preparing to meet the great demand which will shortly be made upon their resources.

Incandescent lamps, for example, which are articles of common daily use, have hitherto been imported into this country from Germany on a very large scale, and British manufacturers have suffered severely from the competition. The British Thomson Houston Co., Ltd., the manufacturers of the Mazda lamp, have extensive works at Rugby, in which employment is given to thousands of British workmen. They are the owners of the fundamental British patents for the manufacture of drawn-wire lamps. These works are well equipped to supply incandescent electric lamps for the British market. The same company also supplies all forms of electrical apparatus from large turbines and generators down to the smallest electric motor.

We also learn that the staff of employees in the lamp manufacturing section of the Ediswan Company is being added to daily, and full time is being worked in consequence of increased orders for all makes of Royal Ediswan lamps. The company has every confidence in the present general situation and in their ability to meet all demands now and in the future, and no effort will be spared to maintain their usual service to

the trade. The Ediswan engineering section is able to speak with equal confidence, not only because of the increased activity caused by Admiralty work, but also by the continuation, so far, of everyday orders, and, indeed, in increased orders for many special lines. With commendable patriotism the firm are allowing half-pay to the wives of the married men serving in the Army, who will be taken back to their old positions upon return.

## EARLY TOWN PLANNING IN EDINBURGH.

An interesting paper on early examples of town planning in Edinburgh was read at a meeting of the Institute of Municipal and County Engineers at Dunfermline recently by Mr. A. H. Campbell, the Edinburgh Corporation engineer. The man, he said, who first saw the potentialities of the land on which the New Town of Edinburgh was to be built was James Craig, a local architect. His plan, selected in private competition in 1767, was deservedly regarded at the time as a work of genius, and when compared with the streets of the ancient city must have impressed the popular mind as nothing short of a revolution in the laying out of a town, showing as it did, spacious rectangular building blocks intersected by wide streets and finely conceived terminal squares, known as St. Andrew Square and Charlotte Square, on the east and west respectively. Curiously, although George Street is now regarded as secondary to Princes Street, the intention of the designer was that George Street should be the principal shopping street and dominant feature of the plan, with Princes Street subsidiary or secondary thereto, and as a residential road, which indeed it was. Time has, however, effected in this respect a complete conversion and almost entire reconstruction of Princes Street into the great shopping street of the city.

### *The South Side of Princes Street.*

The great valley of the Nor' Loch, at that date just reclaimed by drainage and bounded by the broad boulevard—now Princes Street—formed a most tempting site for building developments, especially to proprietors, it may be, needy and eager to realise somewhat of the latent value of the land for such profitable purpose as its conversion into building sites. Building operations were actually begun, but the public sense prevailed, so that, after much protracted litigation, an Act of Parliament was obtained in 1816 enacting, *inter alia*, "That it shall not be lawful nor in the power of the Lord Provost, Magistrates, and Council or their successors in office to erect or sanction the erection of any building whatever to be erected in any part of the ground belonging to the community of the said city on the south side of Princes Street." From this Act, confirmed and reinforced by subsequent Acts, dates the preservation of this uniquely beautiful valley in the centre of the city as a perpetual pleasure ground for the people—probably unsurpassable in its combination and variety of natural features unspoiled by the builder's and the gardener's art, which have their part, nevertheless, in this beautiful city landscape.

### *A Scheme of 1806.*

With the then approaching completion of Craig's plan, and the continued demand created by the flow of fashion migrating from the High Street and Canongate to



this new town, the need arose for the development of further building lands, lying still northwards and declining towards the valley of the Forth. Again resort was had to a town plan, and in turn that piece of land, bounded by Heriot Row upon the south to Fettes Row upon the north, and from Bellevue on the east to the old-time village of Stockbridge on the west, was made the subject of a town plan. This scheme, prepared about 1806, adheres to the bold conception of Craig's scheme for Princes Street, George Street, and Queen Street areas. The joint authors were Messrs. Robert Reid and William Sibbald—the former being the architect to His Majesty in Scotland, whilst the latter held the position of City Superintendent of Works. The leading ideas were streets and buildings ranged in rectangular order, straight but impressive by their great width, fronted by palatial buildings, chiefly of a residential kind, and having that continuous stretch of woodland and greenery as garden ground, extending practically the entire length of the plan from east to west, between Queen Street on the south and Heriot Row upon the north, with the gardens of Drummond Place and Royal Circus balancing the northern fringe of this area.

The inclusion of public gardens as essential adjuncts of city development is evidence of the foresight of the planners, and of the appreciation, by landowners and citizens alike, of those things that really matter. This recognition of recreation or airing spaces, as vitally essential to the growth of a town, has set the pace, which, happily, has been well maintained in other areas which followed on, north and south of the ancient city boundary, such as Moray Place, Ainslie Place, and in more recent times the squares and gardens of the west end; whilst the gardens of George Square, Nicolson Square, St. Patrick Square, Gayfield Square, and St. James Square, etc., all pay tribute to the same idea of a central garden space as indispensable to the successful hygienic grouping of buildings and the growth of communities.

#### *The Dean District.*

The next area to be taken in hand was that tract of land, the property of the Earl of Moray, overlooking the water of Leith and Dean Valley, and embracing Moray Place, Ainslie Place, Randolph Crescent and Cliff. For this area plans were prepared by Gillespie Graham about the year 1823, and this plan probably approximates nearest to the ideas of the town planner of to-day in the freedom and informality as compared with the earlier plans. The plan of development is made to dovetail into the western termination of Craig's plan of Princes Street and Queen Street, and of Reid and Sibbald's plan of the territory to the north thereof. Internally this plan of Graham's is attractive and novel in its departures from the straight lines of the earlier plans. In lieu thereof we have the curved lines of Moray Place, Ainslie Place, and Randolph Crescent, encircling a series of gardens along the axial line of the plan and flanked by palatial town mansions of exceptionally dignified architectural treatment. The many-storeyed mansions of Moray Place, crowning the wooded slopes of the valley, and the terraced treatment of the gardens of those mansions, present from the Dean Bridge a combination at once pleasing to the eye, effective as a picture, and void of offence against the æsthetics of this beautiful valley.

Concurrently with the development of

the Earl of Moray's estate came the western outgrowth of the city in those streets called Melville Street, Coates Crescent, Atholl Crescent, etc. The planning of this area is in no wise inferior to the excellence of the earlier examples that have been described. Modelled upon similar lines, the area worthily sustains the traditions of the New Town, both as regards the width of its streets and the quiet dignity of its architecture. The later additions to or extensions of this plan in the buildings of St. Mary's Episcopal Cathedral at the extreme west-end of Melville Street and directly in line thereof form a noble terminal feature to the west, with St. George's Parish Church and its domed crown closing in the view towards the eastern end.

#### *Edinburgh Vistas.*

It will be conceded that the various designers of the New Town of Edinburgh recognised the part which may be played in giving to leading streets suitable terminal features. To mention a few, consider Princes Street with the Calton Hill and its many monuments closing in the eastern vista, while St. George's Campanile Tower and the stately spire of St. Mary's Cathedral terminate the western view; or, again, George Street, with its Melville monument on the east, and St. George's Parish Church and dome on the west; Howe Street, with the appropriately disposed St. Stephen's Church at its northern terminus; or Hanover Street, with the classic Royal Academy in the immediate foreground, backed by the turreted terminals of the Assembly Halls, and crowned by that triumph of Gothic architecture in the lofty spire of Pugin; or, see the Scott Monument from St. Giles' Square; whilst the Castle is the dominating feature, visible from all points of the city's compass. All these and many others that attract the eye at nearly every turn in our New Town bear witness to the foresight of those early planners, to whom we must pay grateful tribute, and to the passion that then prevailed of adorning by worthy architectural dispositions the city so favoured initially by Nature, and yet also presenting by reason of Nature those very barriers that have made the planning of the city and the linking up of its several parts so physically difficult and so constructionally expensive.

## PROJECTED NEW WORKS.

#### *County Council Offices, Chichester.*

The West Sussex County Council have decided to erect new Council offices at Chichester.

#### *Baths, Northwich.*

Northwich Urban District Council are seeking power to borrow £3,100 for the erection of public baths.

#### *Housing Scheme, Earsdon.*

The Earsdon (Durham) Urban Council have decided to proceed at once with a housing scheme at West Holywell.

#### *School, Devizes.*

The Wiltshire Education Committee are to build a school to accommodate 360 scholars at Devizes.

#### *Bridge, Allestree.*

Belper Rural District Council have selected six plans in connection with a new bridge proposed to be constructed over the river Derwent at Allestree. These are to be considered by the Derby Town Council.

#### *Mortuary, Loftus, Yorks.*

The Loftus, Yorks, Urban Council have passed plans for the erection of a lecture room, motor garage, and mortuary at Skinnersgrove Ironworks.

#### *County Offices, Dundalk.*

The Louth County Council have decided to expend £10,000 upon new county offices at Dundalk, and have appointed a committee to deal with the matter.

#### *Pier Extensions, Donegal.*

The Donegal County Council are considering a loan of £11,500 for the purpose of extending the Boncrana and Rathmullan piers, and building a pier at Burtonport.

#### *Church, Mill Hill, N.*

The design has been adopted for a new church at Mill Hill to seat 350. The cost is estimated at £4,500, and £2,307 15s. has been raised.

#### *Sanatorium, Northumberland.*

The Northumberland County Council have received provisional sanction for the purchase of a site for a sanatorium at Wooler.

#### *Residence, Castlereagh.*

The Board of Works has sanctioned the erection of a dispensary residence at Loughglynn at a cost of £1,000 for the Castlereagh Board of Guardians.

#### *Proposed School, Midsomer Norton.*

A County Council enquiry has been held into the application by the Midsomer Norton Urban Council for the provision of a new school in the Westfield Ward.

#### *Sanatorium, Beverley.*

The East Riding of Yorks County Council have decided to purchase Rawcliffe House, near Beverley at a cost of £10,000 for conversion into a tuberculosis sanatorium.

#### *Housing Scheme, Evesham.*

The Evesham Rural District Council have applied for sanction to borrow £10,000 for the purposes of a scheme under the Housing of the Working Classes Act, 1909. It is proposed to erect twenty houses.

#### *Bridge, Dunsdale.*

A new bridge is to be built at Dunsdale, a village between Redcar and Whitby, Yorkshire, at an estimated cost of £1,200. The matter is in the hands of the Highways Committee of the County Council.

#### *Improvement Scheme, Belfast.*

The Belfast City Council have executed two mortgages to the Board of Works to secure loans of £10,000 and £25,000 respectively for City improvement schemes and for the purposes of the Small Land Acquisitions Act.

#### *Sanatorium, Holland, Lincs.*

The Holland (Lincs) County Council have decided to join the Lindsay and Lincolnshire County Councils and the Grimsby Corporation in the erection of a joint sanatorium at Roughton Moor, two and a half miles from Woodhall Spa.

#### *Church Schools, Millbrook.*

The managers of Millbrook (Plymouth) Church Schools have undertaken, in response to the demands of the Cornish Education Authority, to build new schools for 300 children, who are now accommodated in two separate buildings. The cost will be about £3,000.

#### *Hospital, Harwich.*

It has been decided to build a new hospital for Harwich and Dover. The trustees of the late Mr. Whitaker



ed £1,000 towards the building expenses and £5,000 for endowments, which, together with other donations, has brought the building fund up to £1,191.

#### *Extension, Sheffield.*

The Sheffield Corporation have received permission from the Local Government to borrow £68,000 for the extension of the Moor Hospital.

#### *School, Newport.*

The Newport (Mon.) Education Committee have recommended the Council to build an infants' school to accommodate 100 children and to enlarge the existing school at Spring Gardens.

#### *Housing Scheme, Nuneaton.*

The Nuneaton Town Council have decided to purchase 4,000 square yards of land at Springfield and 6,000 yards on the Central Estate, Nuneaton, for the erection of 100 houses for the working-classes.

#### *Housing, Chagford.*

The Chagford Rural District Council have received powers for the compulsory purchase of land at Chagford for the erection of cottages. The Council is also in negotiation for three acres of land for the extension of the waterworks.

#### *Additions, Wakefield.*

The Wakefield Guardians are to increase the accommodation at the union infirmary by building a children's block for thirty-patients at a cost of £2,750, and a surgical block for sixteen male patients at a cost of £1,000.

#### *Town Planning, Yarmouth.*

The Local Government Board enquiry has been held at Yarmouth into the application of the Town Council to prepare a town-planning scheme. It was stated that the scheme to be dealt with is entirely in connection with the extension of the town and comprises 100 acres.

#### *Police Court, etc., Whitehill.*

The Whitehill Petty Sessional Division is to meet the requirements of the eastern division of the Alton Petty Sessional Division, arising principally from the establishment of the large military camps at Bordon. The Standing Joint Committee of the Hampshire County Council are considering the erection of a suitable police-station and court-house at Whitehill.

#### *Housing Scheme, Dalkey.*

The Dalkey (Ireland) Urban Council have decided to apply to the Local Government Board for the necessary loan to carry out a scheme for the better housing of the working-classes. They propose to erect 100 houses at a cost of £10,000, including £1,250 for the site of five acres on the Murrish Road.

#### *Harbour Improvement, Inverness.*

The Inverness Harbour Improvement scheme has been formulated for the improvement of Inverness Harbour so as to enable larger vessels to enter. This entails the deepening of the harbour and the extension of Thornbush Quay, and is estimated that the whole work will cost £20,000. The matter is under the consideration of the Works Committee of the Harbour Trust.

#### *Housing, Blaenavon.*

The Local Government Board inquiry has been held at Blaenavon into an application of the Urban Council for sanction to borrow £13,350 for a local housing scheme. It was intended to erect fifty houses at Forge and thirty-eight at an estimated cost of £240 each, and fourteen larger ones at a cost of £240 each. There was no opposition to the scheme.

#### *Housing Scheme, Hamilton.*

The Hamilton (Scotland) Town Council are to proceed with the erection of four tenements in the Low Waters area of the burgh under their housing scheme. It is proposed to build houses of one room, with kitchen, scullery, and bathroom at an estimated cost of £776 per tenement, or £3,200 in all.

#### *Housing Scheme, Manchester.*

The Sanitary Committee of the Manchester Corporation hope that in a few weeks they will be able to start their house-building work on the Blackley estate. Designs for fifty new houses are on view at the Town Hall. The Committee propose to build many more houses on the estate in the near future. The Parks Committee have decided to extend the lake in Heaton Park by 6½ acres, bringing the total area up to 20 acres. The cost is estimated at £16,000, of which 70 per cent. will be for labour. The Manchester Guardians have decided to proceed with the erection of a new children's hospital in Cavendish Road.

### DURHAM COUNTY COUNCIL'S NEW SURVEYOR.

Mr. Albert E. Brookes, lately surveyor to the Cornwall County Council, has just been appointed to the County Surveyorship of Durham. He is a native of Lancashire and was educated at the Liverpool Institute and the Macclesfield Grammar School. He was articled pupil and assistant to Messrs. Firth and Sheldon, civil engineers and land and mine surveyors, of Macclesfield, Cheshire, from 1887 to 1890, and was appointed in May, 1890, Divisional Surveyor of Main Roads under the Hertfordshire County Council. In October, 1896, he gained the appointment of Chief Assistant County Surveyor to the Worcestershire County Council. In October, 1907, Mr. Brookes was appointed County Surveyor for the Western Division of the County of Cornwall, and on the death of the late Surveyor to the Eastern Division in 1911 he took command of the whole county.



MR. ALBERT E. BROOKES  
(Durham County Council's New Surveyor).

### OBITUARY.

#### *Mr. A. C. Bulmer Booth, A.R.I.B.A.*

Mr. Arthur Charles Bulmer Booth, A.R.I.B.A., whose death occurred on July 17, at the age of 70, was for many years a partner in the late firm of Hudson and Booth, of Godliman Street, E.C., one of the oldest firms of architects and surveyors in the City of London.

Mr. Booth was a pupil of the late Joseph Springbolt and afterwards entered the office of the late Professor Acheson, B.A., R.A., as assistant, where he remained until he joined Mr. William Hudson, who was at that time enjoying an extensive practice in the City. Later Mr. Booth became a partner of the firm, with Mr. Hudson, Jun., the practice being carried on under the title of Hudson, Son, and Booth until the death of Mr. William Hudson, after which it was continued by the remaining partners and subsequently by Mr. Booth alone, at 113, Queen Victoria Street, E.C.

Mr. Booth was elected an Associate of the Royal Institute in 1881 and was well-known amongst his contemporaries, serving for many years on the various committees connected with the Institute's work.

He was also one of the oldest members of the Architectural Association, having joined that body in 1863. In these early days he took an active part in the work and organisation of the society, acting as visitor to the classes, etc., and, having a good tenor voice, he joined heartily in the old Association plays and soirées.

In the early days of his practice he carried out a considerable amount of domestic work, and after his partnership with Mr. Hudson became responsible for most of the architectural side of the firm's work, Mr. Hudson, Jun., attending to the surveying and valuing branches of the business.

Owing to the cutting of Queen Victoria Street, in 1870, several of Wren's churches were interfered with by the removal of old property abutting upon them and, the firm being at that time surveyors to the parishes of St. Nicholas Cole Abbey, St. Benet, Paul's Wharf, and St. Andrew by the Wardrobe, they were instructed to make the necessary alterations and improvements. The most extensive work was required to the churches of St. Nicholas and St. Andrew, entirely new fronts to the new street having been necessary, and in addition, at a later date, a new organ gallery was erected at St. Nicholas, while the interiors of St. Benet, Paul's Wharf, and St. Andrew's were remodelled to a considerable extent to meet modern requirements. These alterations were most carefully carried through by Mr. Booth, the old work being carefully preserved and used wherever possible, while the continuity of Wren's design was maintained in the new work.

The practice of the firm embraced building works of almost every character both in the city and suburbs of London. The most important works entrusted to the firm during the last thirty years include: Business premises, 66, Great Titchfield Street; alterations to Lyceum Theatre; Rochester Buildings, Leadenhall Street; warehouses, 56 and 57, Upper Thames Street, E.C.; residence for Mr. E. F. Hilton, Balham; 111, High Street, Marylebone; 114 and 115, High Street, Marylebone; warehouse, Upper Thames Street, E.C.; factory for the London Liquid Carbons and Acid Gas Co.; warehouse and showrooms, Upper Thames Street, for Mr. Henry O'Brien (first



section); Mullens Hotel, Ironmonger Lane; warehouse and offices for Messrs. Blundell, Spence and Co., Upper Thames Street; No. 10, Clifford Street, W.; No. 8, Broadway, Ludgate Hill; addition to Paul's Bonded Warehouses, Upper Thames Street; business premises, Whitfield Street, Tottenham Court Road; show-rooms and offices, Upper Thames Street, for Mr. Henry O'Brien (second section); office building, 31 and 32, Crutched Friars; Farrow's Bank, No. 1, Cheapside, E.C.; alterations and additions to 111 and 113, Queen Victoria Street, E.C.

Just before his death Mr. Booth had taken into partnership his chief assistant, Mr. G. Morriss Viner, Licentiate R.I.B.A., by whom the practice will be continued at 113, Queen Victoria Street.

#### BRITISH STANDARD SPECIFICATION FOR SALT-GLAZED WARE PIPES.

The desirability of standardising "stoneware" sewer and drain pipes was urged upon the Engineering Standards Committee at different times from various quarters, and more particularly by the Institution of Municipal and County Engineers, which body appointed a committee for the purpose of obtaining information from their members with regard to their requirements for a standard specification. The data thus collected was then summarised by that institution in the form of a draft specification and placed at the disposal of the Engineering Standards Committee. A representative and well-attended conference of users and manufacturers was called early in 1911 to consider whether the standardisation of this class of pipe was desirable, and the opinion of the meeting being unanimously in favour of such a proceeding, the Main Committee formed those attending the conference into a Sectional Committee under the chairmanship of Sir Maurice Fitzmaurice, C.M.G.

At an early stage of the work it was found desirable to discard the use of the terms "stoneware" as being difficult of definition and to adopt the term "salt-glazed ware," which was sufficiently descriptive of the pipes, the quality being safeguarded by the imposition of an absorption test.

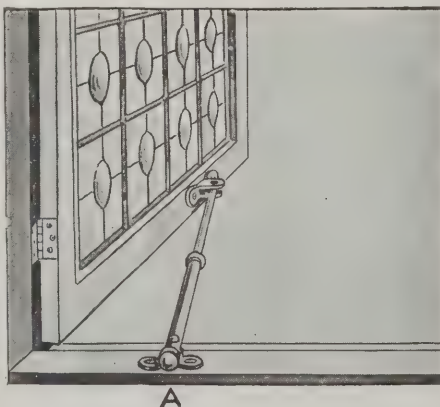
In drawing up their recommendations for salt-glazed ware pipes the committee were able to avail themselves of the draft standard specification drawn up by the Standardisation Committee of the Institution of Municipal and County Engineers previously referred to, and of a draft specification based on the proposals of that institution which was subsequently submitted by the pipe manufacturers on the Sectional Committee as the result of a long series of conferences amongst the manufacturers. These drafts were of material assistance in forwarding the work of the committee and were of very great help in leading up to the formulation of the Standard Specification which has now been issued. The question of putting forward a standard form of socket which would produce in unskilled hands better alignment than the form in most general use, occupied the attention of the committee for some considerable time, but, in view of the importance to the industry of not materially increasing the cost of salt-glazed ware pipes, it was not found practicable to proceed with the matter, and therefore, as regards the sockets, only the minimum mean thickness and minimum internal depth and a minimum jointing space have been specified.

The specification divides the pipes into two classes—namely, British standard pipes, which are made with the intention of complying with the specification, but of which only a percentage are required to be submitted to the hydraulic test, and British standard tested pipes—that is to say, pipes which have been individually subjected by the manufacturer to the hydraulic test laid down in the specification. Amongst the other points dealt with are the absorption test, permissible limits of deviation from thickness, standard diameter, and straightness, and a standard mark for all pipes complying with the British Standard Specification. The Specification is one that should be in the hands of all municipal engineers and architects. The price of the report is 5s. 2d. post free, and it may be obtained from any bookseller or direct from the offices of the committee, 28, Victoria Street, Westminster. It is published for the committee by Messrs. Crosby Lockwood and Son, 7, Stationers' Hall Court, Ludgate Hill, E.C., and 5, Broadway, Westminster.

#### TRADE AND CRAFT.

##### *The "Uneeda" Casement Stay.*

For the "Uneeda" self-adjusting casement stay the following advantages are claimed: (1) A casement fitted with this stay is perfectly secure against being slammed by the wind. If, through carelessness or otherwise, the casement is left open, it is nevertheless firmly held and there is no danger of damage to the sash or glass through the former being blown to by the wind. The stay is entirely self-adjusting and securely holds the casement in any position. (2) Where this stay is fitted there is no strain thrown on the hinge when one attempts to close or open a casement, or in a lesser degree when an open casement is acted upon by a strong wind. (3) As shown in the illustration of a stay fitted to an outward-opening casement, there is no projection into the room where these stays are used, and thus the



damage frequently caused to curtains, plants, etc., by the stay of a partly opened casement is avoided.

As regards the construction of this stay, the telescopic pattern has a brass barrel provided with a mount for attaching to the window-sill, with a rod or piston sliding in the barrel, one end of the rod being attached to the casement. The barrel end of the rod carries a split piston, which fits into the barrel and produces sufficient friction to hold the casement firmly. The piston is ingeniously constructed of yellow metal throughout and cannot be affected by weather or salt atmospheres, and any

wear that may occur is automatically taken up by the expansion of the piston. The action is as smooth as though a pneumatic principle were employed. The makers claim that these stays are very durable, and that those which have been in use a number of large and well-known buildings for several years past are working no less well as when they were first fitted.

A variety of sizes and patterns of other stay are made, to suit every type of building. For large and elaborately decorated buildings there is a series of elegant patterns to match decoration and finishing of various periods. Another type of "Uneeda" stay is constructed on a different principle, but has the distinctive quality of self-adjustment, and is sold at a price that competes with the cheapest ordinary stay, so as to be suitable for cottages and small houses. The Uneeda Fittings Company, 25, Victoria Street, Westminster, supply these fittings.

##### *Boilers for Heating.*

Leaflets have been received from the National Radiator Company, Ltd., 441, Oxford Street, W., giving particulars of their Ideal No. 1 and 2 "G" series boilers, a new type of boiler which they have just placed on the market. These boilers the construction obviates the necessity for a loose base, thus eliminating the difficulty often experienced in forming an airtight joint between sections and base. These boilers are claimed, also occupy much reduced space and provide flow tappings at a very low height above the floor level. This is a particularly valuable feature in the case of the No. 2 "G" series steam boiler, which, with capacities running from 488,000 B.T.U., or 1,890 sq. ft. of radiation, have a flow outlet only 38 inches above the floor line.

The No. 1 "G" series boilers are assembled, while the No. 2 "G" series, to facilitate handling and erection, have the sections cast in halves. Sectional attention is also called to the insulating jackets which are supplied with these boilers. These jackets consist of steel and non-conducting material, and complete in themselves. As they are fastened to the boiler, bolts and screws are dispensed with, and, owing to the fact they consist of only five parts besides key strips and corner pieces, they can be fixed in a few minutes. Specimens of the No. 1 and 2 "G" series boilers are on view at the firm's showrooms as above.

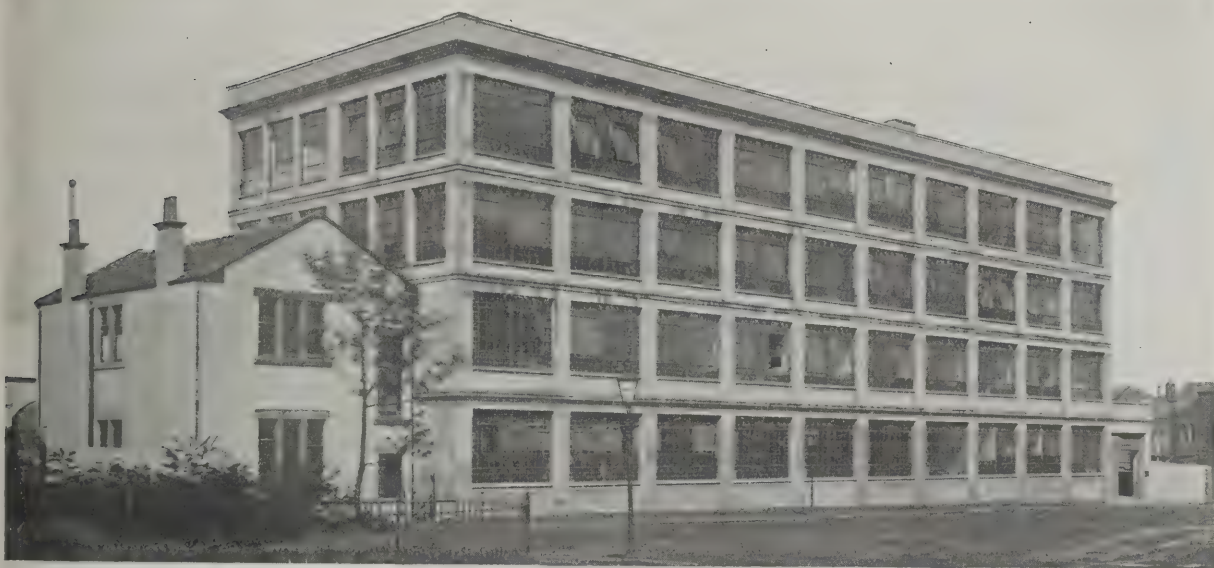
##### *French Firms in London.*

The idea has naturally gained ground that firms in London which are of French or of French origin may be somewhat hampered in their business as a result of the war. On behalf of one of at least, we are able to relieve all doubts to the effect of the present crisis upon their working arrangements. M. Edmond Coignet, Ltd., we understand, in spite of the fact that several of the French and English members of their engineering staff have been called away, are carrying on business as usual as specialist engineers for reinforced concrete works. At present they are dealing with a large number of very important contracts, such as the designing of some forty warehouses and sheds for the new docks of Buenos Aires, the new Science Museum for H.M. Office of Works, the new Epsom Asylum, extensive coal bunkers and elevated railways for the L.C.C., at Crossness, and many other works.



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*Two Facts and a Deduction.*



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"As to economy there was no question about it. One of the works I had in hand in this material cost about 2d. a cubic foot for the carcase. You could not touch that under certainly twice the sum of money in any other material."

(Sir Henry Tanner.)

## FACT NO. 2.

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(Report of French Govt. Test.)

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N.B.—The Trussed Concrete Steel Co., Ltd., will be glad to collaborate with Architects on any construction, and place at their disposal the skill and experience of their staff of specialist designers.



## NEWS ITEMS.

*Changes of Address.*

Mr. Martin S. Briggs, A.R.I.B.A., has transferred his office to 7, Southampton Row, Bloomsbury, W.C. (four doors from Holborn). Telephone: Museum 2308.

Messrs. Campbell and Adams have removed from the Royal Liver Building to 51, North John Street, and in future will practise at that address.

*Dublin Corporation Housing Scheme.*

A provisional Local Government Board order is to be issued in connection with the Dublin Corporation Housing Scheme, the proposed expenditure on which is £174,750. A site is to be purchased on the Fairbrothers field, of twenty-two acres, and the plans provide for 108 4-roomed houses at £210 each, 480 3-roomed houses at £190 each, and 212 2-roomed flats at £125 each.

*Restoration of Whitekirk Church.*

Sir Robert Lorimer, A.R.S.A., has been commissioned to prepare plans for the restoration of Whitekirk Church, East Lothian, which was burned down by Suffragist incendiaries in February. The Committee, which is raising funds for the work, has already received £6,400. A sum of £1,600 is still required.

*Beaux Arts Atelier.*

The Beaux Arts Committee at its meeting on August 19 decided that the work of the Atelier should proceed as usual. The Esquisse for the first Monthly Competition will be held on September 5 and 6, in accordance with the programme, and the first Exhibition and Criticism of the

Session will be held on October 7, as previously arranged.

*Urban Housing Committee.*

Mr. Herbert Samuel has appointed the following additional members of the Committee on Urban Housing:

Mr. Cecil Harmsworth, M.P.; Sir Robert Fox, Town Clerk of Leeds, representing the Municipal Corporations Association; Mr. W. T. Postlethwaite, LL.B., clerk to the Swinton and Pendlebury Urban District Council, representing the Urban District Councils Association; and Mr. Fred Knee (London Trades Council).

*Another Bit of "Old London" Saved.*

When the L.C.C. proposal for extending the tramway service from Aldgate along Mansell Street and round Trinity Square was rejected by the House of Lords recently, one interesting result was that by this decision one of London's oldest inns, dating from Henry VIII.—to wit, The Crooked Billet (or Reilly's)—was saved from destruction. There is a tradition that Oliver Cromwell once lived at The Crooked Billet.

*Site for Captain Scott Memorial.*

The Committee of the Captain Scott Memorial Fund have accepted an offer of the Admiralty of a site at Greenwich Hospital for the erection of the memorial to the brave Antarctic explorers. The site immediately faces the river and is mid-way between what are called King Charles's and Queen Anne's Buildings. The Admiralty stipulate that the memorial shall be in keeping with the character of the architectural surroundings, in the opinion of experts whom they will consult, and

before the actual position is selected, a framework model will be made so that the effect may be judged *in situ*. The design of the selected design (by Mr. Hodge, the eminent sculptor) was treated in our issue for July 29, 1914.

*Proposed Memorial to Mr. B. Burleigh.*

At a meeting of friends and admirers of the late Mr. Bennet Burleigh it was resolved to appeal for subscriptions in order to raise a worthy memorial to the famous war correspondent. A committee has been formed, and the nature of the memorial was considered, but no decision has yet been arrived at. Mr. Burns has consented to act as treasurer of the fund, which has been opened at Parr's Bank (Fleet Street Branch). All correspondence should be sent to the Institute of Journalists, 11, Fleet Street. Among the members of the General Committee are the Earl of Devon, Lord Charles Beresford, M.P., Cheylesmore, Field-Marshal Lord Roberts, Mr. Winston Churchill, Lieut. General Sir R. S. S. Baden-Powell, Arthur Conan Doyle, Sir Joseph Chamberlain, and Mr. T. P. O'Connor, M.P.

## COMPETITIONS.

*Dublin Town Planning Competition.*

His Excellency the Lord Lieutenant of Ireland has decided in consequence of the difficulties arising from the situation created by the war, to suspend the time for sending in plans, etc., in the above competition until April, 1915.

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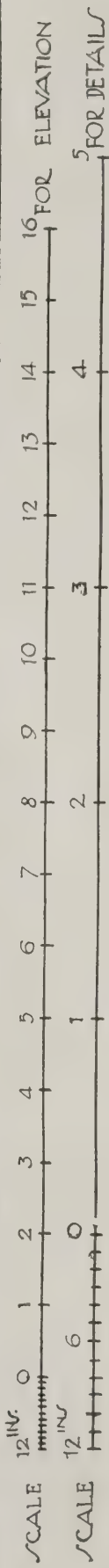
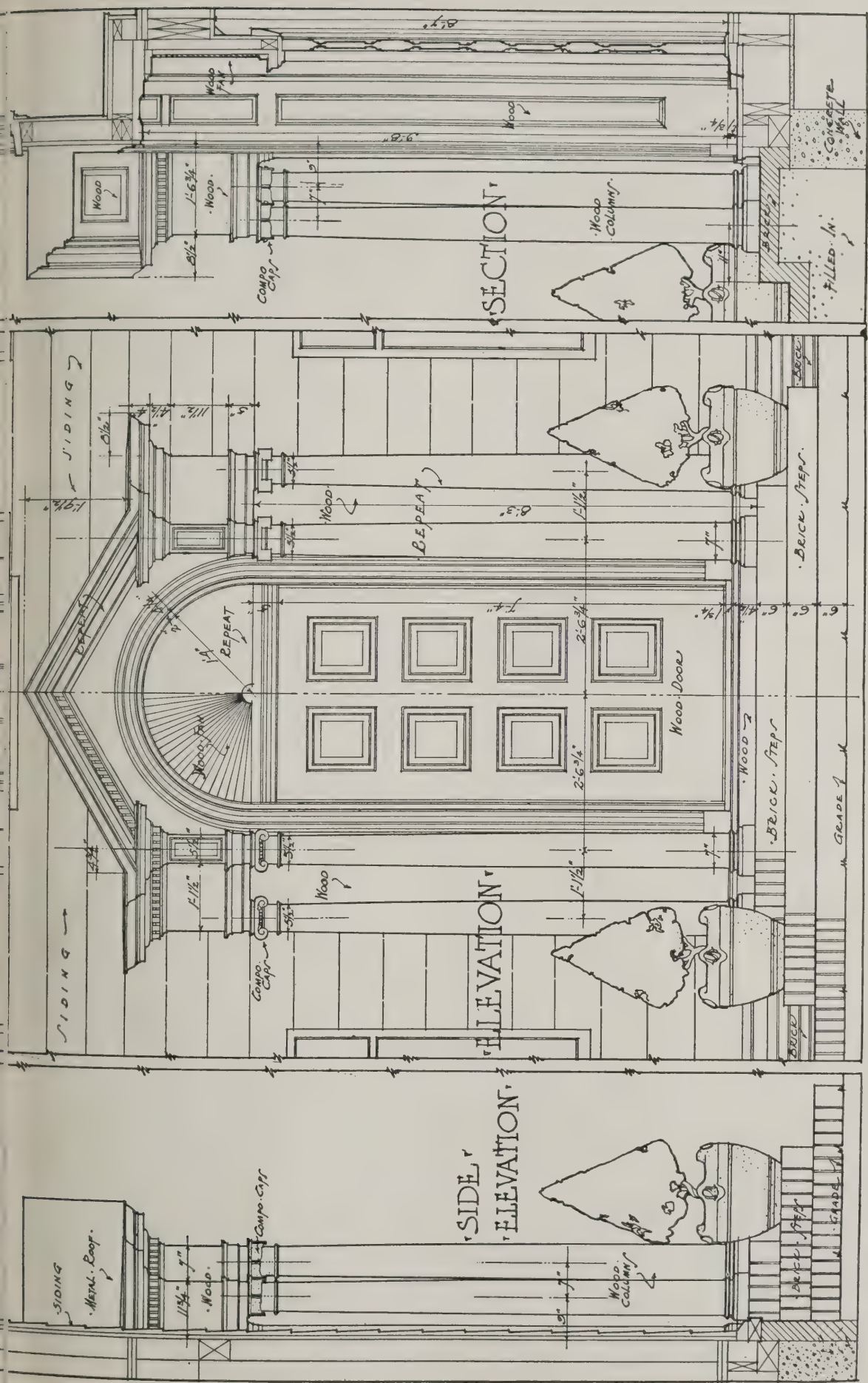


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WORKING DRAWINGS BY WELL-KNOWN ARCHITECTS (NEW SERIES). XXXIV.—ENTRANCE TO HOUSE AT NUTLEY, N.J.  
 ARMSTRONG AND DE GELLEKE, ARCHITECTS.



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MODERN SHOP FRONTS. XII.—BUTCHER'S SHOP, 35, LEECE STREET, LIVERPOOL.

CAMPBELL AND ADAMS, ARCHITECTS.



101  
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COTTINGHAM'S DESIGNS. XXIII.—ANTIQUE MASKS FOR THEATRES, &c.



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MONUMENTAL ARCHITECTURE. XXVIII.—ROYAL PALACE THE HAGUE, HOLLAND



THE END  
OF THE WORLD





STUDENTS' DRAWINGS. XXVIII.—COMPOSITION OF THE IONIC ORDER.

BY W. H. CHALLINER.



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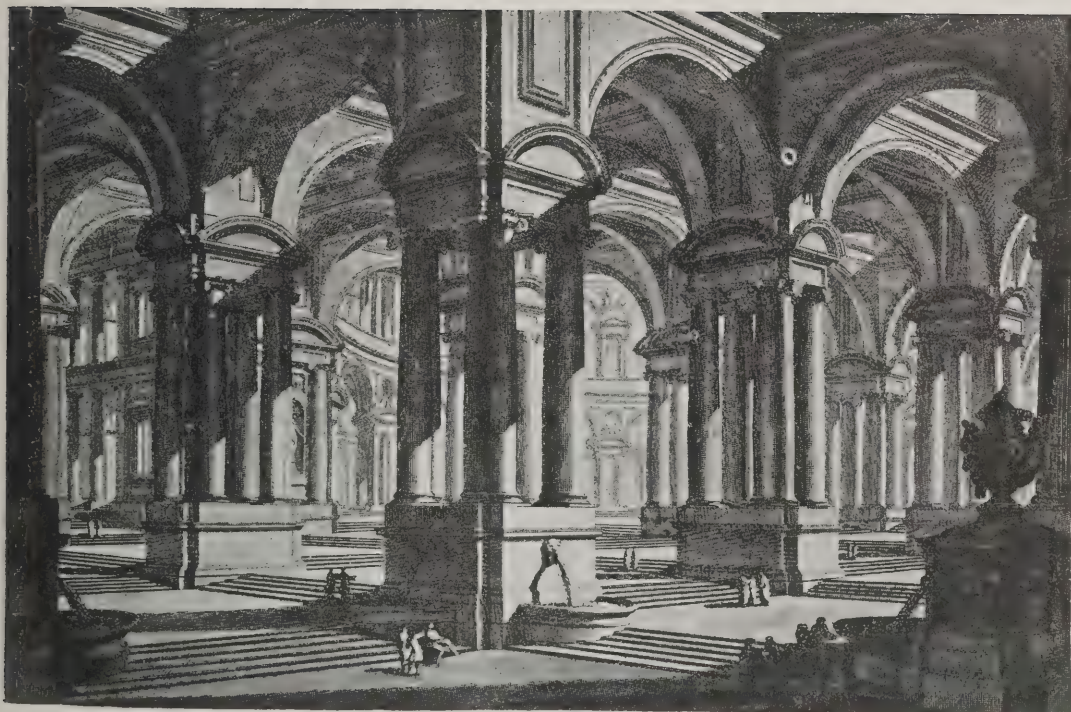


# THE ARCHITECTS' & BUILDERS' JOURNAL.

Wednesday, September 2, 1914.

Volume XL. No. 1026.

No. 100.



*(From Piranesi.)*



# THE ARCHITECTS' & BUILDERS' JOURNAL.

SEPTEMBER 2, 1914.

CAXTON HOUSE, WESTMINSTER.

VOLUME 40. No. 1026.

## EDITORIAL.

ON another page of this issue we publish a report of a deputation of representatives of the National Housing and Town Planning Council who waited on the Local Government Board last week with respect to the Government £4,000,000 housing scheme, of which particulars were published in our issue for August 19. It will be seen that the deputation drew attention to the following four principal considerations: (1) That local authorities should not have to pay on loans a higher rate of interest than was current prior to the war; (2) that the Government should stimulate local authorities in undertaking housing schemes by making capital grants in aid of expenditure; (3) that housing loans should be granted to public utility societies at pre-war rates of interest, and that the proportion of the loan to the value of the property should be raised from two-thirds to nine-tenths; (4) that houses built in urban districts should be erected under town-planning conditions, with a limitation of twelve to sixteen houses to the acre (and fewer in the case of rural areas). Mr. Samuel's replies were, on the whole, satisfactory.

With regard to (1), no promise was given that the Government would be able to lend money at pre-war rates of interest, an answer, indeed, which might have been anticipated. The Government cannot possibly be expected to know what financial changes may occur as a result of the present war, and any hard-and-fast promise might only lead to national embarrassment at a later date. In the circumstances, Mr. Samuel's statement that the Treasury would be prepared to advance money at the rate at which the Government might be able to borrow must be considered satisfactory. With regard to (2), Mr. Samuel explained that it was not the intention of the Government to use the £4,000,000 provided by the Housing Act for grants in aid. If this were done, he said, every local authority borrowing money would expect a grant. This is perfectly true, and we fail to see why a grant should be refused. The new Housing Act was conceived primarily with the object of ensuring the employment of a large body of men who might otherwise be out of work by reason of the war, and thereby be a heavy charge on the ratepayers. Some local authorities may not be in a position to proceed with housing schemes, much as they would like to do so, and to them a grant in aid would be indispensable. We sincerely hope that the Government may decide to make grants in the really necessitous cases; otherwise the object of the Act will be largely defeated. With regard to (3), Mr. Samuel's answer (except with reference to the interest question) was in the affirmative. In the final consideration (4), his replies, though reassuring, were perhaps not sufficiently explicit. We have already urged that it would be a serious blunder to allow houses to be erected without

proper regard for the considerations of town-planning. On this point Mr. Samuel said he had considered the matter, and he proposed to communicate with the authorities at a later date. It will be noted that no definite promise was given with regard to town-planning, and also that the question of the design of the houses to be erected was altogether ignored. This matter must not be overlooked.

The architectural profession has contributed a large number of men to the country's military forces—both to the Regulars and the Territorials. Quite fully they have put aside T-square, pencil, and drawing-board, and donned the khaki of military service. By this time, to our certain knowledge, a large number of them must be well on their way to foreign posts to supply the places of the Regulars who have had to be withdrawn for active service on the Continent. Others are distributed about the country with the Territorial forces taking part in the equally arduous duties of home defence. Thus are architects showing their readiness to excel in the arts of war as well as in the arts of peace. In the interest of at least a proportion of these patriotic members of the profession, numbers of them engaged in winning laurels, we should like to direct attention to a matter which, in their absence, may possibly be overlooked. Many of the men who have joined the forces are still working as students in the architectural schools, and are well on to securing some of the prizes and awards. It would be manifestly unfair if they were to be deprived of the fruits of their labours. We mention, for instance, of a young architect (now deputed for foreign service) who stood a very good chance of winning the Royal Academy Medal, for which he had been striving for some considerable time; and in his case it would be very unjust if some other man, possibly less patriotic (not to say less patriotic), were to step in and secure the prize. These conditions doubtless apply to the majority of prizes and studentships which are awarded by architectural bodies throughout the country, and we sincerely hope that the authorities will in all cases see to it that the interests of their students who have answered to the country's call are not allowed to be

Last week we referred in our special article "Builders' Prices and Some Other Considerations" to the fact that architects were seriously affected by the confused method of pricing tenders which has resulted from the present European crisis, adding that the L.M.B.A. were giving the matter their attention and that an announcement on the subject might be expected shortly. Since then we have received communication from Mr. Ernest J. Brown, who writes: "The only thing the Association has taken steps



insertion of a qualifying clause in new contracts, regarding members in tendering whilst prices are liable to fluctuation during the present crisis." This statement gives a clear indication of the position of the M.B.A., who could scarcely have done less than protect their members in the way described. The vital matter, however, has up to the present remained untouched, and that is the control of the prices of materials. No one seems to know definitely to what extent building materials are likely to be affected by the war and, in consequence, it is impossible for architects to tell their clients even approximately how much a building is going to cost. To our certain knowledge, many people who were about to undertake building works have decided not to do so for the present, simply because architects were not able to give a definite guarantee with respect to the prices of materials. It is necessary, therefore, that something should be done, and done immediately, to secure a reliable schedule of prices. The Government were asked to determine the prices to be charged for food-stuffs, and there should be no great difficulty in doing the same thing with regard to the materials of building. It is not supposed for a moment that they would be able to fix exact prices; but it should at least be possible to determine the limits of fluctuation, so that a builder might know his building was going to cost no more than a certain sum in one direction and no less in the other.

The destruction of Louvain by the Germans is the most astounding act affecting architecture which has ever been perpetrated in the course of the war. It cannot be termed nothing less than gross vandalism, such as has never before characterised the onslaught of those Huns who the Kaiser has held up as models of ruthlessness. Our daily newspapers have already made the public aware of the wealth of architecture that has been destroyed. "The Times" said: "The beautiful Hôtel de Ville—a wonderful example of pointed architecture—the stately church of St. Pierre, the famous University, all are gone. Even the library of 70,000 volumes and priceless manuscripts was committed to flames by the ruthless barbarians who have set out to spread 'German culture' throughout the world." The "Daily Chronicle" said: "Its small Hôtel de Ville was one of the rarest masterpieces of the late Middle Ages, of perfect proportions and of execution as delicate as if fairies had woven it over a web of gossamer and turned it to stone by a spell of magic." Its great collegiate church, of cathedral dimensions, contained some of the finest mediæval sculpture. Its University, one of the most famous in Europe, was almost unique outside Oxford and Cambridge in being a university of colleges; and the beautiful college buildings (dating mostly from the reign of Richelieu) were of unique interest."

It is not to be it from our intention to mitigate the dastardly deed which the Germans have done. We would note, however, that it is possible to over-eulogise even in the case of Louvain. We read that the Hôtel de Ville, the work of Matthew de Layens, was built between 1450 and 1465, but in conjunction with that statement it is necessary to read this other, that the building was erected in the early part of the nineteenth century, and that fortunately it suffered less at the hands of the Germans than many another Gothic fabric in Belgium. Our regret might perhaps be felt for the loss of the stately church of St. Pierre, to the embellishment of which Quentin Matsys contributed so much. When this is gone, however, the black fact remains that what remains is nothing more than a heap of ashes, and perished with it are relics of Flemish mediæval architecture which can never be replaced.

On page 159 of this issue we publish a valuable statement (received from a well-known architect) with respect to the present position of architecture and the building trade. The situation is very carefully reviewed in all its most important aspects, and some excellent suggestions are offered with regard to future action. It will be seen that the method by which the Institute War Committee was brought into being is mildly criticised. The settlement of so important a matter without reference to the Council is a rather serious departure from constitutional practice; but the urgency of the crisis may be advanced in justification of such a course. In publishing these facts we have no desire to embarrass the Institute in the work which it has undertaken; in the words of our correspondent, we sincerely hope that "an unfortunate start will not prejudice a good finish," and that all those who have a grievance may suppress it for the time being and do all in their power to assist the official authority in the work which has been taken in hand.

For some weeks past we have been expecting to hear the result of the competition for the new offices of the Board of Trade which are to be erected in Whitehall. The conditions of the competition were issued almost exactly a year ago, and in April of the present year ten architects were definitely selected to take part in the preliminary competition. Since then nothing has happened. Desiring to obtain early news of the result, we communicated with the Office of Works, and received the following courteous reply: "In answer to your letter . . . I am directed by the First Commissioner of His Majesty's Works, etc., to inform you that, beyond stating that this (the result) will not be available before the end of the current year, the Board are not in a position to make any announcement on this subject at present." Thus a period of roughly sixteen months will have been allowed to elapse between the start and the finish of the competition—a somewhat undue length of time, even for a Government department. It is, of course, conceivable that the present crisis may have had something to do with this further delay, so the architects concerned must await the result with patience. In the meantime, we should like to urge that the announcement of the awards be expedited as much as possible. A building such as this (it is to cost £570,000 all told) would come as a veritable boon to the London building trade during our present troubles.

We learn that Mr. Thomas Adams, who, for the past four years and a half, has been associated with the Town-planning Department of the Local Government Board, has accepted the post of town-planning adviser to the Commission of Conservation of the Dominion of Canada. Mr. Adams played a great part in the development of the garden city movement. The first paid secretary of the Garden City; and Town Planning Association, he did much to stimulate town-planning in this country; and as secretary of the Pioneer Company and First Garden City, Ltd., he was responsible for all the executive work involved in the foundation of Letchworth. Subsequently he was engaged until 1910 in the practice of a town-planning surveyor, and he prepared plans for Alkington, Knebworth, Newton Moor, Shirehampton, Glyn Cory, and a number of other places, including 1,500 acres for Lord Salisbury at Liverpool. For the past four years and a half, as stated, he has occupied an important position at the Local Government Board, having been responsible for all the preliminary work done under the Housing and Town Planning Act. The Town Planning Institute was practically created by Mr. Adams, who was also external examiner to the Civic Department of the University of Liverpool. Canada's gain is our loss, but all will wish Mr. Adams every possible success in his new sphere of action.



## HERE AND THERE.

WE get a crumb of information now and again in the newspapers concerning buildings that have been destroyed or seriously injured during the conflict. The battle shells have played havoc with many a heritage of the past. Louvain has been reduced to a heap of ashes; the fine old tower at Malines has suffered grievous damage; Antwerp has been attacked in the dead of night with bombs dropped from the sky; and though Brussels, dominated by Poelaert's mighty building, has escaped injury, the German hordes have gone through Belgium leaving desolation behind them. Perchance by the time these lines catch the eye of the reader the guns of the enemy may be booming before Paris—or before Berlin? In the midst of the fight, when men are at the grim work of killing, they do not stay their hand on account of a building, however ancient, however fine; and in due course we shall see the fearful record of destruction. The monument whose shapely form had witnessed the passing of centuries will then affright the eye, a battered relic. The holy fabric that enshrined the work of great artists will be an utter ruin, pitiful to behold. And of whole areas of houses there will remain nothing but blackened walls, charred roofs, and appalling chaos. It has long been foretold what would happen when the nations set their guns a-thundering. And at a moment when we fear for the fate of the most beautiful city in Europe it is well to recall what happened before, in 1870.

If M. Thiers was at that time so anxious to preserve the greatly cherished buildings of Paris, what should we say if London were in a similar state of siege? There would be St. Paul's and Westminster Abbey and the Houses of Parliament, the British Museum, the Tower, the Bank, the National Gallery, the City churches—we should want to preserve all these, and many more. A military governor possessing a sardonic vein of humour might send out an aide-de-camp with Map No. 1, on which all these were carefully marked, and he might add that if the Germans were really in want of something to fire at, they might train their siege guns on the buildings marked on Map No. 2, where a very extensive selection would be found—all of which might be pounded to atoms "with much content." Sad to say, even Government buildings, big hotels, and large blocks of expensive commercial premises done by F.R.I.B.A.s would have to be marked by an inexorable governor inspired with a sense of architectural worth.

Wandering curiously one day last week into the now re-opened National Gallery, where, it may be noted incidentally, English-atte-Massachusetts is the prevailing dialect, my thoughts turned to architecture as represented on canvas. I stopped for some time in front of that picture of "St. Paul's from the Surrey Side," by Daubigny, which is one of the many fascinating works of the modern French school which form part of the national collection. The sailor who found fault with the rigging of a ship in an artist's picture, the soldier who brought some destructive criticism to bear on the representation of a battle scene, and other similar critics who have estimated pictures first and foremost for the technical accuracy of their details, have long had their quietus from artists. "A picture is not intended to be a photograph." Nevertheless, the expert critic rises ever Phoenix-like, and on the strength of precedent I will run the risk of being branded as a peccable professional person by averring that St. Paul's dome as shown in Daubigny's picture tilts a little to the right and has not the sweetness of outline which we know so well by having seen the real thing so many a time. I will go even a little further with fribbling criticism by saying that the western

towers as shown in the artist's picture are too sharp. So, with a precise instance in front of us, we can at a general indictment, which is, that the line of the dome of St. Paul's is a very subtle line, and very indeed is it represented correctly in pictures. Yet the whole sweetness of Wren's masterpiece depends on the accuracy with which the outline is rendered, and that account I may perhaps be excused for my perversity in stalking in where artists fear to tread.

The foregoing little excursion into what might first sight appear to be captious criticism leads to an easy stage to consider another matter where a degree of accuracy is necessary. It concerns the use of the words "Classic" and "classical." The word has been bandied about pretty freely at the present time, and a facile writer has caused a flutter with his diatribe against those who advocate a return to the forms immortal by the Greeks. We hear a good deal of "Classic" architecture, with a capital "C," and of "classical" architecture, with a small "c." What lies the distinction between the two, if any?—asked the examination paper would say, "give reason for your answer." Here it is necessary, I fear, to grow warily, else the gods of philology be upon me. Murray has long ago gone past the third letter of the alphabet in his great Dictionary, and is ready to give us any amount of information respecting the various applications of the words in question. But he does not happen to be at my elbow just at the moment, so I must rest content with the authority of a certain Webster, who tells me that "classic" is a word of the highest class and of acknowledged excellence, and that an author, as opposed to romantic—that is, restrained and repose as contrasted with freedom of fancy in conception and treatment.

"Give, as thy last memorial to the age,  
One classic drama, and reform the stage."  
—Byron

But all this does not help us a great deal when applied to modern architectural literature. What is "Classic" architecture and what "classical"? I venture on this explanation—that "Classic" architecture is, strictly speaking, architecture of superlative character, and that "classical" architecture is architecture in manner or after the style of the other. There has only been one architecture of superlative character, that of the Greeks, and therefore the term "Classic" is applicable only to Greek architecture. But the architecture of the Romans (done, indeed, in large part by the Greek taste and extraction) also achieved a superlative quality almost akin to that of Greece, and the extension of the term "Classic" to Roman architecture is therefore warranted. For the rest, the architecture of the Renaissance in Italy, in France, in England, as well as the architecture of the Revivals: the architecture of Brunelleschi, Scamozzi, Palladio, Perrault, Goussier, Sufflot, Inigo Jones, Wren, Elmes, Cockerell—it is all "classical" architecture, not because it may not in any way be perfect, but because it came after the first exemplar. An alphabet had been invented, and all that followed was an application of it: but I must hasten to add *pace* to the Goths. The medieval cathedral, admittedly, though essentially different in conception from the Athenian temple, might with a show of reason lay claim to be called "classical," in so far as it was a sublime expression of its own style. We cannot make a new universe, however; we must take the world as we find it; and the term "Gothic" stands for quite another ideal. Now we get into a labyrinth of meanings, to escape from which I must leave the matter with the final remark, that, following precedent, if there be "Gothic" architecture there should be "gothical" architecture, and where is it?

UBIQUE



## BUILDING AND THE WAR CRISIS: SOME PRACTICAL CONSIDERATIONS.

appeal was made in the editorial notes of last week that the doings of the Architects' War Committee be not subjected to "carping in public." If the Committee gives that it can assist the profession in the solution of the many grave problems with which it is itself confronted during the present crisis, can be no doubt that its members will earn the approbation of their fellow professionals. So far from the formation of the Committee is concerned, it has had an unfortunate start, which it is to be hoped will be rectified by a good finish. Its inception must date from a private meeting which preceded the general meeting at the R.I.B.A. on August 14; the Committee's first meeting at 3 p.m. on August 18, and the final meeting of the R.I.B.A. was then called for 5 p.m., and the first time was told what had been done. You will remember Mr. R. Goulburn Lovell as asking for peace for the profession so that a solid front may be maintained; an admirable sentiment, but to leave the R.I.B.A. entirely in the dark is not a very good method of procedure. It is an admission that the Council as a whole, or in part, is not trusted by the members; this in itself is regrettable but not fatal if the Committee gives proof that, under the new law they have enforced, they can move more effectively than is the habit of Conduit Street. In passing it may be added that a letter was addressed to the Council on August 12 dealing with the difficulties of architects' experience in obtaining tenders on a uniform basis, and making the admittedly bad R.I.B.A. Contract uniform to war risks. On enquiry it was stated that the Practice Committee will deal with the matter in October. Meanwhile, contracts are being issued.

The suggestion that the Selection Sub-Committee compile lists of architects, with particulars of their qualifications, for use in advising the Government, is a very careful consideration. The original proposal was that architects should offer their services; those who, for a variety of reasons, could not do so should give some part of their time instead. This is quite sound, and an architect might be more effectively employed superintending an emergency work than in guarding it as a special constable. If services are not going to be given, any alternative will amount to nothing.

It is to be hoped that the Executive and General Purposes Committee will not waste much time in discussing "the desirability of issuing to the profession the public an appeal to carry on building work to the utmost extent during the progress of the war." There is no need to issue such an appeal to the profession. What we all want is an argument so technically sound that it will carry weight with the public who is patriotically inclined, that by building he does not incur more than some definite responsibility, and power to limit it.

Messrs. Charles Heathcote and Sons are to be commended on their letter in which they have the courage to state that "four actual buildings have been completed and also the drawings for at least three more." If it is any consolation, they are not alone. The frank recognition of the present position is better than a long recital of jobs started before the war. The consideration which appears to be weighing with clients is that tenders are not being sent in on a uniform basis.

The Master Builders recently circularised their members suggesting that all tenders should be based as being based on prices current on August 4; prices contingent on the war to be measured and allowed for as variations. Opinions were expressed on this proposal, but meantime one very

important firm of builders have adopted the idea, and their tenders are now sent in on this basis.

The Master Builders meanwhile have not come to any final decision, some members thinking that clauses can be inserted in the contract afterwards which will have the effect of safeguarding their interests.

To summarise the results of this irregularity of tendering, one large job has been abandoned for the time being because of widely varying prices, some tenders being withdrawn. It must be evident that unless all tenders are on the same basis, confusion will result and progress be stopped. The original suggestion of the Master Builders seems, on the whole, to be a very fair one, but it is evident that it must be backed up by some central committee composed of architects, surveyors and builders, acting in conjunction with the Board of Trade, to regulate prices and give clients some guarantee.

Assuming that the architect, having obtained his tenders priced on a pre-war basis, goes to the client and asks that the same be accepted, the latter may quite rightly feel that he does not know where he stands; but assuming that this official sanction be given, that the client pays no more than he quite properly should, and that he be further safeguarded by a contract which he may determine if he finds prices going too high, this seems a logical solution. The alternative to this must be putting on a percentage to cover war risk.

Looking at prices at the moment, the increase may be taken at 5 per cent. or under. At the commencement of the war, when the mouth of the Thames was shut, and ballast and cement were difficult to obtain, prices rose rapidly, but during the past week lead, copper, timber and some few other materials may be instanced as the only ones much above normal. That such may continue to be the case must be the sincerest wish of all connected with the building trade, because all are agreed that the trade of the country must continue; but the war dominates this position, as all else, and no builder dare tender on any other basis than pre-war prices. It is also quite conceivable that some prices may fall and so adjust things to a nearly normal basis. The Board of Trade Committee would be in a position to make inquiries into the operations of any rings or trusts formed to corner materials and raise prices. Such combinations do exist, and any attempt in this direction should be named as an unpatriotic act.

What would amount to an official pronouncement from the Prices Committee that an advance of not more than, say, 5 per cent. is proper, would at once enable the client to decide if he could afford to proceed. It is evident that where an expensive site had already been purchased, it would pay to proceed, so that interest on purchase money be saved and rents earned as soon as possible—always provided that in the case of prices unduly rising such could be stopped.

Another factor at the moment is that banking facilities will have to be improved. The banks have been helped by the Government in guaranteeing bills of exchange, and so enabling the Bank Rate to be lowered; in return they should be prepared to lend money freely. It is also to be hoped that the capital of the huge Central Relief Fund will not be hoarded in the usual way, but circulated as speedily as is possible.

Attention will have to be given to the point of law covered by the "Crittall" case; architects who may have certified advances to sub-contractors through the builder must be indemnified if the latter, through lack of credit, cannot at once meet the claims.

What happens in the case of retention money on a contract stopped during the war? All these and many other details need the attention of the War Committee.

C. H. B. Q.



## THE MIDDLETON TOWN HALL COMPETITION.

[SPECIAL CRITIQUE BY J. HUBERT WORTHINGTON, M.A., A.R.I.B.A.]

IN reviewing the above competition, the selected design for which was illustrated last week, a few of the main governing conditions may first be set down. The Borough Corporation invited designs for a new Town Hall to be erected in Long Street, and appointed Mr. Hastwell Grayson, M.A., F.R.I.B.A., assessor. The designs placed first, second, and third were to receive premiums of £100, £50, and £25 respectively, the first premium to merge with the commission on the work. The front of the building, to face Long Street, was to be not less than 85 feet nor more than 100 feet.

Particular clauses relating to the Old Boar's Head Inn stated that this ancient black and white building, standing adjacent to the site, need not necessarily influence the architects in designing. Public opinion in Middleton appears to be in favour of retaining this old-world though not very remarkable hostelry. Accordingly the Corporation wisely intend to have a model constructed showing the inn and the selected design, and if it is found that the inn has seriously interfered with the satisfactory planning or the exterior of the Town Hall, they reserve the right to remove the inn and on its site to erect the Town Hall. In that case, they will pay £100 to the author of the selected design, and will appoint him architect. In front of the Town Hall site is Jubilee Park, dominated by a picturesque old church standing on the top of the hill, beneath which is a charming scheme of steps leading up to a fountain designed by Mr. Edgar Wood some years ago.

The new buildings might very well be linked up to this by a little judicious adjustment of the planning of the park, which would greatly improve the centre of the town. Should the Free Library prove to be too small for the expanding energies of the Borough, its removal at no very distant date would be a considerable improvement, for it is unsightly, and will hinder the effectiveness of the new building operations.

The chief accommodation required on the ground floor was:—Town clerk's department: Private office and general office. Borough treasurer's department: Private office and clerks' and collectors' office. Medical officer and health inspector's department: Private office,

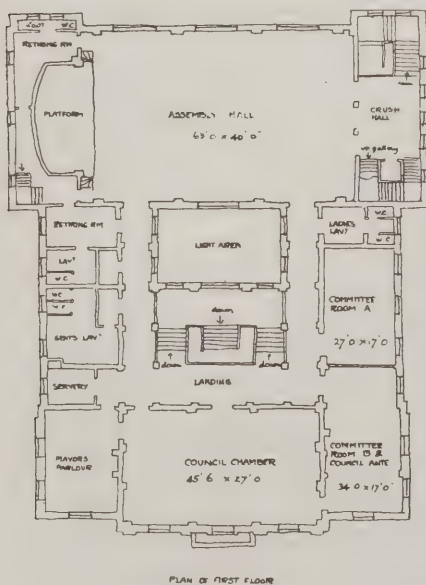
general office, and nurse's room, for medical or private office, general office, and sanitary store. Health inspector. Education department: Private office and clerk's office for secretary, school attendance officer, and store room. Surveyor's department: Private office, drawing office, and clerks' office and plan room. On the first floor:—Council chamber and two committee rooms, with a third committee room on the second floor, mayor's parlour, and an assembly hall with separate approach, crush hall, cloak room, retiring rooms, platform, and gallery. The maximum amount which the Council are prepared to spend on the building is £18,000.

The assessor's awards, as already announced, are as follows:—1, Mr. A. G. Horsnell, of London; 2, Messrs. Briggs, Wolstenholme and Thornely, of London and Liverpool; 3, Messrs. Clapham and Symons-Jeune, of London. One hundred and seven designs were received, but only five sets of plans were on view besides the premiated ones, viz:—12, Wallis and Bowden, London; 19, Honeyman and Keppie, of Glasgow; 20, H. T. Morgan and C. Cowles-Voysey, of London; 21, Cleland and Hayward, of Wolverhampton; 22, Sylvester Sullivan, of London.

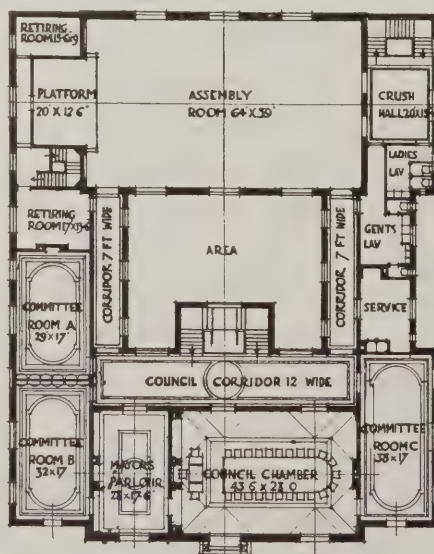
The plans exhibited may be roughly divided into two groups, those with the assembly hall at the front and the council chamber and committee rooms at the back, and vice versa. Three designs, including the two, belong to the former category, the remainder to the latter. The placing of the assembly hall at its separate entrance at the back makes convenient access for carriages rather difficult.

The fact that the drawings were to 1-16 inch scale should be noted, as it saved competitors a considerable amount of unnecessary labour, and in the circumstances a perspective was necessary to show the scheme adequately.

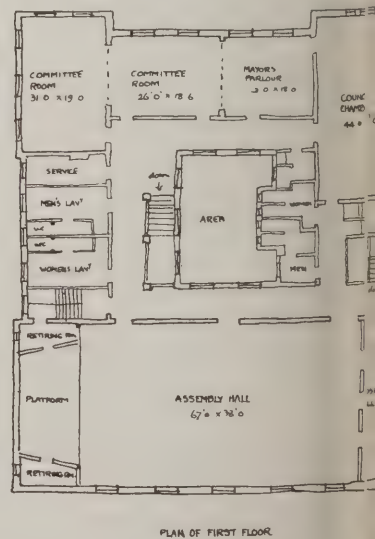
The winning design stands out from the others as regards convenience and exterior effect, and is shown by a very attractive set of drawings. The scheme is efficient, utilitarian, and economical, and it satisfies the conditions. There is nothing particularly about the ground-floor plan except the hall and corridors are well lighted from a large



Second-Premiated Design.  
Briggs, Wolstenholme, and Thornely, Architects.



First-Premiated Design.  
Alick G. Horsnell, Architect.



Third-Premiated Design.  
Clapham and Symons-Jeune, Architects.

MIDDLETON TOWN HALL COMPETITION: FIRST-FLOOR PLANS.





THE OLD BOAR'S HEAD, MIDDLETON.

and that all the departments are arranged in a haphazard way. The first-floor plan is not quite unimpeachable. Practical requirements are fully met, but the corridors and staircase are somewhat lacking in unity. This defect might easily be remedied in a better design. There is, moreover, an absence of architectural cohesion about the plan of this floor, which does not possess the balance of the corresponding one placed second. One would have expected a greater degree of unity of effect in the large committee rooms.

The exterior of the building is shown by a charming perspective drawing. By keeping to the narrow site and setting it back as far as possible, the architect has worked the scheme into its surroundings better than any of the others, and it has been possible to keep the Old Boar's Head properly detached and to avoid the crowding which so detracts from the design placed third. Whereas most of the designers have failed to grasp the peculiarities of the case, the winner has met them in a praiseworthy way. There is something extremely quiet and restful in the design, which comes as a great relief to the ostentatious and stereotyped schemes that are too often found in town halls. The general massing is excellent. Combined with the ample plain surfaces, the relation of the basement to the main storey and the wings to the central block, gives a serene dignity to the design. The junction of the brickwork to the masonry of the central block would, however, be a little unsatisfactory in execution, as the architect projects so slightly that it looks a little as though it was a stone skin added to the building without having any very organic function. The overhanging chimneys and the urn motif at their base seem to emphasise the awkwardness of the juncture. The thin return of cornice.

The main door is a little top-heavy and squat in proportion, and the ingenious slips of windows in the gables over the main windows seem to break up the otherwise fine horizontal effect rather unnecessarily. These are only minor defects easily able to be remedied. Taken as a whole, the winning design stands out pre-eminently from the designs exhibited.

The design placed second follows in its general lines close upon that placed first. The hall and corridors on the ground floor are not nearly so adequately lighted as in the design of the winner. Otherwise the arrangements are straightforward. The first-floor plan, as has been stated, is in some respects inferior to the design placed first, having a less ample upper hall and staircase, and the committee rooms are well arranged and excellently lighted. Architecturally, however, it falls below the standard of the winner. Two conical turrets only emphasise the incongruousness of the two main blocks, the

assembly hall looking much as though it were an afterthought.

It is difficult to see why No. 8 obtained the third place. A glance at the plan reveals its haphazard lopsidedness. Though the main elevation is in itself fair, the disjointed nature of the plan is clearly shown up in the perspective, and the design appears to have little relation to its site and surroundings.

Design No. 60 has a particularly able and well-balanced plan, which must have very narrowly escaped being premiated. The *piano nobile* is most dignified with its council chamber at the back, approached by a fine stair to an ample ante-room, which shows up most of those in the other schemes, and there is a fine monumental sense about the arrangement and grouping of the principal rooms. The elevations carry restraint a little to excess, and are somewhat tame and lacking in interest.

No. 75 has a plan which is also noteworthy, possessing distinct architectural qualities. The main rooms are given a maximum of combined effect, but the corridors are very insignificant. Though quite large in treatment it must be admitted that the exterior is more like a railway station than a town hall.

No. 12 is an ambitious and costly scheme with good qualities as regards its general massing. In detail it is not quite so happy. The columns are too widely spaced and the ornament is not happily applied for a design which in its essentials is heavy and severe. The plan is capable.

Generally speaking, the planning reaches a high standard and shows what strides have been made of recent years in the efficient organisation of civic buildings, but architecturally there is a sense of monotony and lack of aim, even among these chosen few. Most of the designs look as though they would serve their purpose equally well in any other town or on any moderately level site. The Middleton Corporation are to be congratulated on having obtained a design of singular merits, which will not only adequately meet their practical needs but greatly enhance the town and form the nucleus of a charming civic centre.

## THE PLATES.

### *Vase on the Bassin de Neptune, Versailles.*

THE magnificent series of fountains which distinguish the gardens of the Palace of Versailles offer a wealth of sculptural ornament which is amazing. Nowhere, indeed, is there to be seen such superlative art in lead, the work of the greatest craftsmen which France has ever produced. The Bassin de Neptune is one of the several large water-pieces. Roughly segmental in plan, it is situated on the north side of the Palace, at a lower level than the main terraces, and provides a magnificent spectacle when the water is turned on to the fountains—a spectacle which was specially provided for the English architects who visited Paris.

### • COTTAGES AT SHERFIELD MANOR •

#### • NR. BASINGSTOKE • HANTS •



• GROUND FLOOR PLAN •



• FIRST FLOOR PLAN •

Scale of 10 5 0 10 20 30 40 50 feet



at Eastertime in connection with the Anglo-French Exhibition of Architecture. Five main groups of figures are included in the basin, these comprising Neptune and Amphitrite (by the elder Adam), The Ocean (by Le Moyne), Proteus guarding the flocks of Neptune (by Bouchardon), and two Dragons, each bearing a Cupid (by Girardon). Around the edge of the basin are numerous lead vases. The one illustrated this week, having a shell base with lobsters crawling out on either side and shells with ornament above, is emblematic of The Sea.

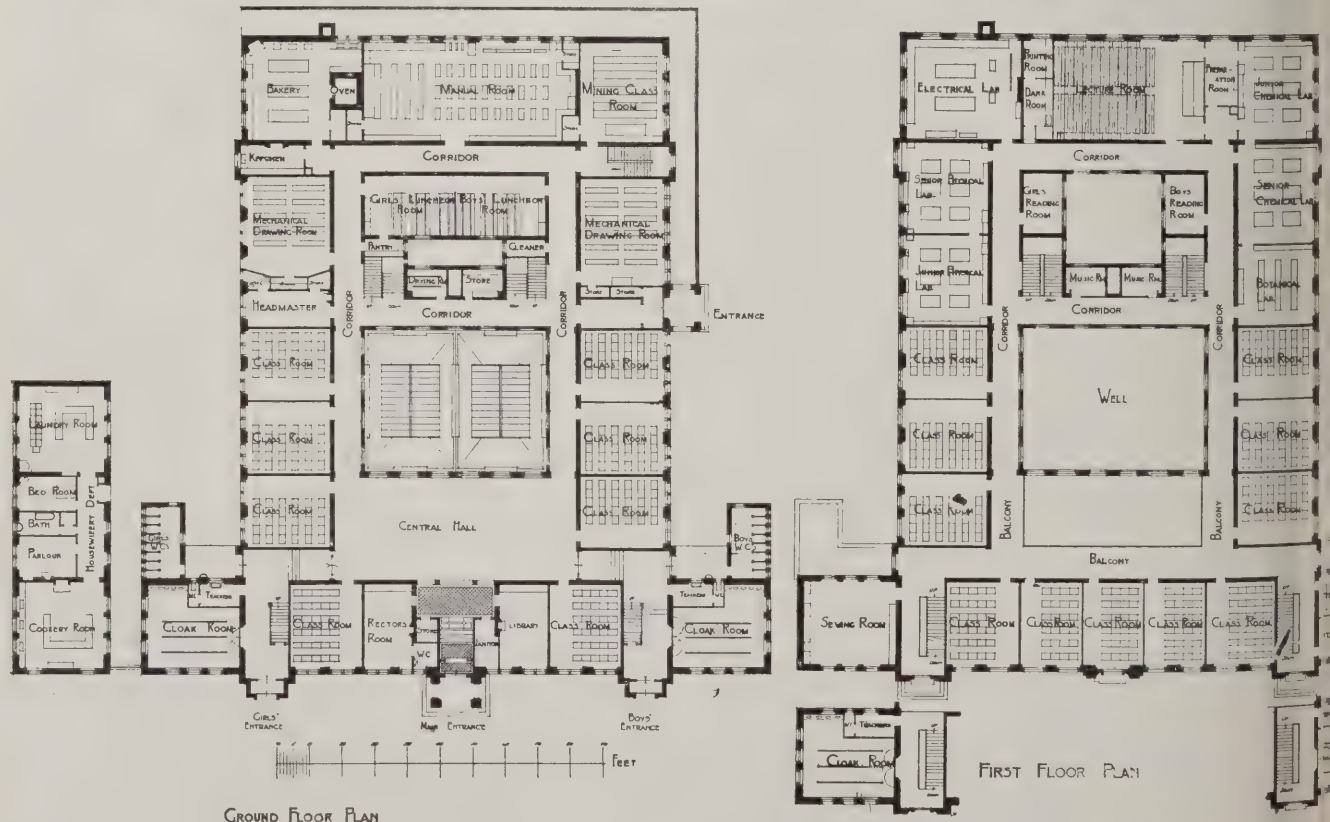
*The Vicarage, Lower Mall, Hammersmith.*

This design is an interesting example of what may be called the transition between the earlier and the later Georgian work. The windows, with their wide

outside frames, are characteristic of the building erected during the earlier part of the eighteenth century, while the porch and the main cornice and frieze belong to the latter part.

*Hamilton Academy.*

This building, which was completed towards the end of last year, has been erected at a cost of £50,000 and comprises preparatory and secondary departments, the former being an entirely separate building. The secondary school, which is illustrated, consists of a school and technical school; the accommodation provided on the ground and first floors is shown in the plans reproduced on this page. The building is constructed of red stone from Dumfriesshire, the roofs being covered with Burlington peggies. The architects were Messrs.



GROUND FLOOR PLAN

FIRST FLOOR PLAN

HAMILTON ACADEMY. ALEX. CULLEN, LOCHHEAD AND BROWN, ARCHITECTS.



Cullen, Lochhead, and Brown, of Hamilton, their having been selected in open competition.

#### *Temple of Castor and Pollux.*

The Temple of Castor and Pollux, shown in the ordered drawing which is reproduced by courtesy of the Massachusetts Institute of Technology, three columns alone remain standing in the Forum which was commenced by Augustus but not finished until about 6 A.D. The columns are exceedingly fine in proportion, being 48 ft. in height, with a diameter of 3 ft. 6 in. at the base. Their capitals are among the best in Rome, though much mutilated. The frieze is 12 ft. 6 in. in height, and the frieze is decorated with blocks like inverted wedges over each column, as to act as a discharging arch, taking the weight off the architrave, which is shallower than in other examples. Castor and Pollux, also known under the name of Dioscuri, were twin gods, the children of Jupiter and Leda. They presided over public games, Castor being the god of equestrian exercise, Pollux the god of boxing. Both are usually represented on fiery horses, with spears and egg-shaped helmets crowned with crests.

#### *Confectioner's Shop, The Hague.*

The style which was developed with such vigour and force during the Napoleonic era has furnished the designer of this shop-front with numerous motifs for ornament, the eagle in the grille over the entrance, the two heads over the pilasters, and the floral wreaths and festoons being all very typical of the Empire. Shop-front designers too frequently appear to be compelled to break up their window surfaces, often with unhappy results, as in the present instance, where the central V-shaped recess is both unnecessary and unbecoming; a plain window right across would have produced a much better effect. But the shop-front is interesting in many respects, and suggests an arrangement which is capable of very successful treatment.

#### *Cottages at Sherfield Manor.*

These cottages, which were built to accommodate the domestic servants of Sherfield Manor, near Basingstoke, Hampshire, on to Sherfield Green—a typical Hampshire village-green. Mr. Fairfax B. Wade, F.R.I.B.A., was the architect. By an unfortunate error, which was discovered after the plate had been printed, the plans appear under the photograph. The plans are reproduced on page 161.

#### *Bungalow at Princetown, Devon.*

Bungalows are generally very tasteless in character, the shanties with meretricious ornament sprinkled over them. We may turn, therefore, with the more interest to the bungalow at Princetown, by Messrs. Ardson and Gill, a reproduction of the eighth-scale drawing for which, showing plans, elevations and sections, is here given. It is quite simple in character, as it should be, with a little verandah very skilfully contrived. In working out the design the architects have carefully studied local traditions, the result being one that is eminently appropriate to Dartmoor. The bungalow is now in course of erection. It is estimated to cost £400, inclusive.

### SUBSCRIBERS ABROAD.

COMMUNICATION with foreign countries being greatly interrupted in consequence of the war, it is probable that our subscribers abroad are not receiving their copies of THE ARCHITECTS' AND BUILDERS' JOURNAL and THE ARCHITECTURAL RECORD as regularly as in ordinary circumstances. We will of course understand that we are not responsible for delay in delivery, as we are continuing to post copies regularly to all countries except Germany. We have no reason to doubt that these copies will eventually reach their destination.

## CORRESPONDENCE.

*The Editors disclaim all responsibility for the statements made or opinions expressed by correspondents, who are asked to be brief, and to write on one side only of the paper. Every communication must bear the name and address of the sender.*

#### *The Effect of the War on Building Materials.* To the Editors of THE ARCHITECTS' AND BUILDERS' JOURNAL.

SIRS,—From the article which appeared in your issue for August 19 we notice that timber, in consequence of the closing of the Baltic, "has risen in price about 25 per cent.," but this advance varies; for instance, at King's Lynn, merchants have only advanced their prices 10 per cent., but at Hull and Grimsby prices have increased from £2 to £2 10s. per standard. There is no doubt that the whole of the Baltic supplies will cease until the German fleet has been disposed of, and if they keep under cover it is difficult to say how long that will be.

There is, however, no need for building to stop for want of timber, because we are still having the very best of timber from Siberia and Archangel, and, as you state, pitch pine and spruce from Canada and the United States of America.

It is very interesting at this period to recall the effect that the Franco-Prussian war of 1870 had upon the timber trade. At that time the Baltic ports were not all closed, whereas now they are. Only the German ports were closed, and the prices of timber went up with a tremendous leap and came down after two months' time to quite a normal figure, and prices did not again advance. The scarcity of European timber was counterbalanced by the importation of more American spruce and pitch pine. Your readers who live in Lancashire know that good spruce is quite as useful for building as white deal, and architects would do well to place an alternative clause in their specifications for best quality spruce to be used, because we cannot expect to be taking any timber from Sweden or Finland for another twelve months, although it is possible that the fortunes of war might clear the way in less than a month.

King's Lynn.

J. H. KERNER-GREENWOOD.

#### *The War and French Patents.* To the Editors of THE ARCHITECTS' AND BUILDERS' JOURNAL.

SIRS,—My Parisian agent, writing on August 19, informs me that by a decree given on August 16 the French Government, with commendable thoughtfulness for inventors, will allow applications for patents to be made without payment of the usual application fee of 100 francs. Such payment is only to be made after the war, and on a date to be subsequently fixed. The decree applies to British applicants, and presumably to all others except subjects of those countries at war with France.

Manchester.

WILLIAM H. TAYLOR.

#### *The Royal Palace, Brussels.* To the Editors of THE ARCHITECTS' AND BUILDERS' JOURNAL.

SIRS,—Your illustrations of what you entitle the New and Old Royal Palaces at Brussels must have greatly interested many of your readers. As I was in Brussels while the old palace was having its front handsomely rebuilt in stone, I rather feel that your readers may be misled into thinking that the existing fine structure is an entirely new building. As a matter of fact, Brussels had much the same problem to tackle as we had at Buckingham Palace. They did what I have always asserted should have been done here—namely, dignified a building with a poor skyline by giving it a handsome mansard roof.

67, Ladbroke Grove.

FRANK L. EMANUEL.



## ENQUIRIES ANSWERED.

### *Ordnance Survey Maps and Boundary Lines.*

READER writes: "Are the areas as given on the Ordnance Survey maps calculated from stool to stool of hedge, including any ditch or ditches that may be in the field, or is the usual 4 ft. allowed for ditches deducted from the field in which it actually is, and its contents added to the field in which the hedge stands?"

—The areas given on Ordnance Survey maps are calculated from centre to centre of the hedges or other boundaries, and if a property is bounded by both hedge and ditch the centre of the hedge is taken as the boundary line, and the area of the ditch is added to the area of the field in which it occurs. It should be noted that these areas do not necessarily give the extent of any particular property, as all boundaries, such as hedges, fences, etc., are shown where they actually occur, while the legal boundaries may be 3 ft. or 4 ft. on either side of the hedge or fence, according to the custom prevailing in any particular county. Moreover, a landowner may form a hedge and ditch as wide as he likes, with the ditch on whichever side of the hedge he may choose to place it, provided he does not encroach upon his neighbour's legal boundary. When fields are divided by means of hedges and ditches, and no definite legal boundary has been legally fixed, it is an almost universal rule that the edge of the ditch remote from the hedge marks the division of the adjoining properties.

### *Building Trade Terms.*

QUERIST writes: "Kindly explain the meaning of the following terms: (1) *Spit*, referring to the depth of soil to be removed. (2) *Flaunched*, referring to chimney-pots bedded in brickwork. (3) *Rubbed*, referring to the treatment of stone work. (4) *Stub*, connected with terracotta work. (5) *Verge*, connected with slaters' work in roof. (6) *Dinged*, connected with treatment of wads for plasterer's work."

—(1) "A spit deep" is the distance to which the ordinary spade is thrust in from the surface. (2) Applies to cementing round the base of the chimney-pot. It means that the cement should be well carried or played up the chimney-pot, so that the weathering may be sharply inclined so as to throw the water off and prevent it penetrating and doing damage in frosty weather. (3) Ground to a smooth surface by rubbing with a stone or metal block, or by placing one stone on another. (4) A stub or neck is a projection on the head of a tile for hooking over the lath. (5) A verge is that part of a sloping roof which projects beyond a gable or half gable. Verge and the terms compounded with it are used in contrast to eaves and its compounds. (6) "Dinging" is an ambiguous term variously used for (a) the kind of rough-cast made by mixing small pebbles with cement and dinging or dashing it on with a trowel or shovel-shaped piece of wood. (b) In Scotland it is a word derived from the Scotch word "dinge," to dent, signifying the operation of forcing the mortar into joints of brickwork by means of a curved tool, or, as we call it in England, rule-, v-, or beaded-jointing. (c) Axing bricks to look like new. (d) Rubbing the face of brickwork with a piece of coloured brick in order to give a uniform tint, generally before tuck-pointing. (e) A rough internal

plastering in one coat pointed or ruled in to imitate brickwork, not necessarily following the actual joints. If the brickwork is fairly level the mortar may be laid on and then rubbed in with a piece of sack-ing, but if the bricks are rough the dinging must be more elaborate.

### *Bloom on Varnish.*

CORRESPONDENT (London, S.W.) writes: "I have been executing some decorations, etc., at some chambers, amongst other items washing and varnishing work which had been previously varnished. Why is it that on some doors a blue tint or bloom should appear after about a month, while other doors and windows in the same room and under the same conditions remain free?"

—Bloom on varnishes is generally due to condensation of moisture upon the surface before the varnish is hard. It can usually be removed by warmth, washing and rubbing briskly with warm water, or rubbing with a wad of wool and olive oil.

### *Sound-Proofing and Stiffening a Floor.*

J. D. writes: "The occupants of a bedroom complain of noise and shaking on the floor above. What is the best means of curing this? The floor is a wooden one consisting of 11 in. by 2 in. joists, span about 19 ft. The room overhead is used largely as a passage. The bedroom must be disturbed as little as possible. Is there any other method besides pugging? Which is the readiest way to stiffen the floor?"

—The floor might be stiffened by the following means: Place a flat iron bar, 2 in. wide by 1 in. thick, longitudinally in the centre of the span under the middle of all the joists, and anchor it into the end walls. Then pass rods,  $\frac{1}{2}$  in. diameter, with screw joints, over the tops of every other joist near the ends, and secure with staples. Incline the rods close down by the side of the joists until they pass under the bar, and tighten with the screw joints. The floor would then be trussed up. The sound-proofing should be done with slag wool pugging.

### *Designing a Parochial Hall.*

SAXON writes: "(1) What should be the superficial area of a parochial hall to seat 300, including the necessary gangways and a platform at end? (2) Would 16 ft. be high enough for the hall? (3) What is the best way to ventilate the hall, which has a club-room over? Would you trust to fanlights over windows, or carry up a couple of vertical shafts through the club-room and so to the roof?"

(1) The space allotted to each person should not be less than 2 ft. 4 in. by 1 ft. 8 in.; the gangways should not be less than 3 ft. wide, and run down each side of the building and at the back. The platform is optional. (2) Yes, if the roof is an open one, otherwise 20 ft. ought to be the minimum. (3) Build air-flues containing inlets and outlets in the form of piers on the outside walls and carry ducts from them to main outlets on the ridge. Fanlights are advisable. Each person requires about 1,800 cub. ft. of fresh air per hour, and on the "natural" system there would be draughts if the air is moved faster than about a change of four times per hour.

### *Slating and Tiling.*

LANCASTRIAN writes: "Kindly give your opinion with respect to the following methods of slating and tiling roofs which are to be plastered on the under side of

spars: Slates: Nail  $\frac{7}{8}$  in. grooved tongued sarking on the spars, covering with asphalt roofing felt, and nail slates over this without battens bedding. Tiles: Tiling similarly laid with tile battens on the felt and the bedded at head in haired mortar. Is there any danger of rot from damp or condensation—especially with tiling laid over plaster? The advantage appears to be that a warm roof is secured and there is no inconvenience from underside pointing coming off or being defective, as is almost always the case with walls and hips."

—The method proposed for the slating is inadvisable. In the first place, only rough boards need be nailed on the spars, and secondly, it has been found that capillary attraction occurs between the tiles and rain water is drawn up into them, making a mud with dust that slowly because there is no ventilation on account of the slates being nailed close on the boards. This mud becomes solid only in seasons of drought, and a cold thus cold and damp, encouraging the breeding of germs and fungus and increasing rot. A roof is more weather-tight if capillary attraction is avoided by making the slates too close. The following would be a good specification: Cover roofs with  $\frac{3}{4}$  in. rough deal boarding, lay vertically thereon sarking felt in 2 in. lap nailed at intervals of 2 in. with clout nails, which shall have been heated while hot in grease or oil, fix battens 1 in. apart, and cover with slates to a line with No. 2 copper nails — 1 in. long each slate, the vertical joint to keep in line from eaves to ridge. With regard to tiles, the method proposed is suitable, there is no reason for bedding the tiles in haired mortar.

### *Decorative Plasterwork.*

DECORATOR writes: "Is there any special method of preparing plaster either on a stippled wall or on a rendered wall so that a decorative panel may be painted in oil on the plaster, which would be rough off the float) to give texture, and the painting may be done, say, two or three after the plaster is pronounced to be dry? Also, is there any way of painting plaster by mixing colouring with it so as to form a background of sort of cartoon effect?"

—(1) The plaster should be dry before paint is put on. This might be done quickly by drying out with coke fires. The usual method where work is required to be painted quickly is to use fibrous slates, which, being in thin sheets, can be put out in front of coke fires. (2) For colouring matters can be mixed with plaster to gain any tint.

### *Stopping Up Worm Holes and Preventing Discoloration.*

W. S. M. (writes): "What is the most efficient preparation for taking discoloration out of American white oak, planed and figured; also for stopping up worm holes in same? The oak in question is to be used for internal seating, and will be varnished."

—The best thing for stopping up worm holes is putty, made with half white lead and half ground up with raw linseed oil. As to removing discoloration on timber that is practically impossible; in fact, likely that any liquid agent applied will only cause greater discoloration. regard to the white wood, brush with peroxide of hydrogen. Success, however, cannot be promised always, bleaching wood is very difficult.



GOVERNMENT HOUSING  
SCHEME.ATTENTION TO THE LOCAL GOVERNMENT  
BOARD.

Friday morning, August 21, the  
ent of the Local Government Board  
ed a deputation of representa-  
of the National Housing and Town  
ing Council, including the fol-  
members of the Committee: Coun-  
Harold Shawcross, J.P. (chairman),  
ale; Alderman W. G. Wilkins, J.P.  
ayor of Derby), Alderman J. P.  
r, J.P. (Tynemouth), Councillor T.  
rr (Manchester), Major C. P. Love-  
Carshalton), Councillor F. M. El-  
J.P. (Ruislip-Northwood Urban  
Council), Mr. E. R. Abbott  
ip-Northwood Urban District Coun-  
Mr. Raymond Unwin, F.R.I.B.A.  
pstead), Mr. B. Seeborn Rowntree,  
York), Councillor S. Smethurst,  
Past-President, Federation of Build-  
ade Employers), Mr. Albert E. Cave  
on), Mr. A. W. Shelton (Notting-  
and Mr. Henry R. Aldridge (secre-  
Mr. Noel Kershaw (Assistant Sec-  
Local Government Board) was also

Chairman and Secretary briefly in-  
ed the deputation and placed before  
resident of the Board a memoran-  
of which the following is the sub-  
—

points are of fundamental impor-  
viz.: (a) While recognising the diffi-  
which the Treasury may have in  
ing housing schemes at the present  
we are convinced that any proposal  
involves the payment of interest by  
authorities at a rate higher than was  
before the war would meet with  
response from them, (b) the proce-  
granting housing loans should be  
familiar to local authorities, viz.,  
periods of 60 years for building and 80  
for land.

desire to add that, in the opinion of  
majority of the members of our Com-  
it is most important that the  
ment should stimulate local autho-  
in undertaking housing schemes by  
g capital grants in aid of the expen-  
upon such schemes. We also sug-  
at arrangements should be made for  
granting of housing loans to public  
societies at rates of interest current  
the war during this exceptional  
and that the proportion of the loan  
value of the property should be  
from two-thirds to nine-tenths.

Government may in making these  
in war time have to make some  
ces—for example, the difference be-  
the rate at which they can borrow  
the rate at which they lend to local  
ities. In return we think the Local  
ment Board should stipulate for  
special features in the various  
g schemes submitted by local autho-  
—

Thus we would strongly urge that  
ver possible houses built in urban  
ts should be built under town-plan-  
conditions with a limitation of houses  
acre of from twelve to sixteen.

would urge that in rural areas provi-  
should be made for each house having  
area of a quarter of an acre, or that,  
s decided to build on less than this  
in no case should there be more than  
houses to the acre, and that provi-  
should be made for those tenants who  
to obtain extra land for allotments  
to their homes.

think that local authorities should

also be required to adopt a good standard  
of housing—for example, the sizes of  
rooms should not be less than those re-  
commended by the Small Holdings Com-  
mittee, and three rooms in addition to the  
living room should be provided. We  
would press upon the Government the de-  
sirability, if this be possible, of allowing  
such houses to be built with concessions in  
the width of roads in a simple form of  
town-planning scheme applicable to the  
area on which the houses are to be built.

## Mr. Samuel's Reply.

Mr. Herbert Samuel, in reply, said that  
a conference to consider the rate of interest  
on housing loans had been held, at which  
he had met representatives of the Treas-  
ury and of the Public Works Loan Com-  
missioners, the Secretary for Scotland,  
and other gentlemen advising him in the  
matter. As a result of this conference,  
and with the approval of the Committee  
on Urban Housing recently appointed, he  
had sent a circular to the local authorities.  
In this circular he stated that it was the in-  
tention of the Government that such sums  
as might be made available under the new  
Housing Act should be utilised for the  
joint purposes of providing and improving  
housing accommodation for the working  
classes and of preventing or mitigating un-  
employment in the building trades. The  
Treasury would be prepared, so far as cir-  
cumstances might permit, to consider ad-  
vances to local authorities of money for  
approved schemes of building which would  
meet the above objects at the rate at which  
the Government might be able to borrow.

In regard to the proposal that loans  
should be granted at a fixed rate per cent.  
—say,  $3\frac{1}{2}$  per cent.—during the war  
period he wished to point out that no one  
could possibly forecast what the rates of  
interest would be for several years after  
the war. Many great nations were con-  
suming capital at the rate of millions of  
pounds per day, and this would produce a  
scarcity of capital at the end of the war.  
If in addition we had in this country a  
trade boom the rate of interest would be  
high as a result of the great demand for  
capital.

In the discussion which followed Mr.  
Samuel made it clear that money would  
be lent for periods of sixty years for build-  
ing and eighty years for land. He thought  
that if, at the end of the war period, or at  
subsequent periods, local authorities could  
borrow money at lower rates of interest,  
they would be allowed to use it to extin-  
guish the loans granted during the war  
period.

Mr. Samuel also stated that the Treas-  
ury had consented to the granting of  
loans to public utility societies for nine-  
tenths of the value of the property as  
against the two-thirds provided for in the  
Act of 1909.

In regard to the question of the plan-  
ning of the land to be built on, he had  
already given consideration to this matter,  
and he proposed to communicate with  
local authorities at a later date.

Councillor Marr and Alderman Wilkins  
raised the question of the possibility of  
using part of the £4,000,000 provided for  
in the Housing Act for the purpose of  
grants in aid.

Mr. Samuel, in replying, stated that it  
was not the intention of the Government  
to use this £4,000,000 for the purpose of  
grants in aid. Their great aim was to  
induce local authorities to undertake  
housing schemes.

[A criticism of some of the replies  
given by Mr. Samuel will be found on  
page 156.]

## SPECIAL LEGAL REPORTS.

## Building Contracts : Architect's Certificates.

*Piccadilly Hotel, Ltd., v. Waring and  
Gillow, Ltd., and Another.*

August 26. King's Bench Division. Before Mr.  
Justice Shearman.

This was a motion for an injunction to  
restrain the defendants from proceeding  
to an arbitration under a building contract  
dated January 15, 1913, and to restrain  
the defendant Mr. William Lockwood  
from acting as arbitrator.

Mr. T. Terrell, K.C., appeared for the  
plaintiffs, and Mr. Green for the defen-  
dants Waring and Gillow, and Mr. For-  
tune for Mr. Lockwood.

Mr. Terrell stated that in June of last  
year the plaintiff company desired to have  
a ballroom erected at the hotel, and they  
entered into a contract with the defend-  
ants. It was a lump-sum contract for  
£10,990. Under clause 4 of the contract  
the architect, Lockwood, who, counsel  
stated, was a co-defendant, had power to  
increase or diminish the dimensions or  
vary them or require additional work, and  
in case of any dispute the decision of the  
architect was to be binding on all the par-  
ties. Continuing, counsel said the archi-  
tect gave certificates which on December  
31 of last year amounted to £10,628, and  
were duly paid by the plaintiffs. On  
January 9, 1914, the plaintiff company  
were astonished to receive three certificates  
from the defendants, one for £4,000, one  
for £878, and one for £571. The two smaller  
certificates, viz., £878 to Messrs. Verity's,  
who took over part of the contract, and  
£571 to Messrs. Clements, who were in a  
similar position, were duly paid. These  
three certificates were £5,000 over and  
above the £10,000 which the plaintiffs had  
already paid. Plaintiffs could get no in-  
formation from the architect, and on  
February 13, 1914, they issued a writ  
against Mr. Lockwood in the King's  
Bench Division, claiming damages and a  
declaration that the certificates Lockwood  
had given were invalid and an abuse of his  
authority as plaintiffs' architect, and an  
injunction restraining him from issuing or  
giving any further certificates and to de-  
liver up forthwith to the plaintiffs the  
copies of all orders given by him on behalf  
of the plaintiffs, and full details. On May  
15, 1914, the defendants Waring and  
Gillow commenced an action against the  
plaintiff company for the recovery of the  
£4,000, for which they held the architect's  
certificate. Plaintiffs resisted this and  
alleged improper conduct on the part of the  
architect in giving these certificates, and  
they were given leave to defend. On July  
3 Messrs. Waring and Gillow discontinued  
their action. The action against Lock-  
wood was proceeded with and the plaintiffs  
had obtained from him considerable parti-  
culars as to how he arrived at the prices.  
The plaintiffs had amended their statement  
of claim against Lockwood and had  
charged him with legal fraud. What hap-  
pened then was this. Waring and Gillow  
discontinued their action for £4,000 and  
served the plaintiffs with a notice demand-  
ing that Lockwood, as arbitrator, should  
determine the question at issue between  
them. The question between the parties,  
said counsel, was whether the certificates  
were valid. On May 22 Lockwood gave  
another certificate for a further £3,000, so  
that now the amount of the contract had  
been practically doubled. The plaintiffs'  
contention was that these certificates were  
bad because of the alleged improper con-  
duct on the part of their architect.

Mr. Fortune, counsel for Mr. Lockwood,  
said all his client did was to exercise his



duty as architect, and he did not go beyond the powers vested in him. The charges which the plaintiffs made against his client were made recklessly and were without foundation. He had in no way exceeded his authority.

Mr. Green (for Messrs. Waring and Gillow) said his point was that the architect, according to the arbitration clause in the contract, was the arbitrator to decide any dispute arising between the parties. Lockwood was not the defendants' architect, but the architect for the plaintiffs, and plaintiffs having a dispute with him was nothing to do with the defendants. They were entitled to their money, they said.

Counsel, continuing, said the ballroom was constructed in the basement of the hotel, and water was there found, which was quite unexpected. Additional work was therefore necessary. The architect had written that the additional work could not be foreseen under the circumstances, and on these slender materials his lordship was asked to keep his clients out of their money for work done.

His lordship gave judgment in favour of the plaintiffs, and said if the order resulted in persons entitled to money being kept out of it, well, he regretted it. Some of the charges against Mr. Lockwood appeared to have been an afterthought, and were not dealt with by Mr. Lockwood in dealing with this matter on the ground that the charges were made after the rights to arbitration arose. It was clear that the architect had power to give orders for extra work and that they must be paid for. But here the architect had failed to give the explanation required of all the extra expenses. The course the architect had taken had disqualified him—not in any fraudulent way—from acting in the matter, and the injunction must go. He granted an injunction restraining the arbitration. He expressed a doubt whether it was necessary for Mr. Lockwood to have been brought here at all, and in his case he reserved the costs. His lordship had no power to dismiss Lockwood from the case.

#### THE SOCIETY OF ARCHITECTS AND THE WAR COMMITTEE.

The Council of the Society of Architects, at its meeting on August 20, unanimously decided to support the movement initiated by the R.I.B.A., by every means in its power, and to place at the disposal of the Architects' War Committee the Society's premises and staff at Bedford Square, for the use of any of the sub-committees. They further voted a first grant of 100 guineas as a contribution to a fund to be formed for providing paid work for architects whose means of livelihood is stopped by the war, and undertook to appeal to members of the Society and their friends for generous contributions towards this fund. The Council has suggested to the Architects' War Committee that a professional employment sub-committee of that body should be at once formed to deal with the administration of this fund; firstly, in determining those architects in actual need of financial assistance in consequence of the war, and secondly, in evolving schemes of a useful nature by which these men may be temporarily employed, such, for instance, as offering small fees for measured drawings to be made of buildings of historical and architectural interest, schemes for the improvement of arterial traffic, or town planning improvements, etc. The main object of this sub-committee would be not to dis-

tribute benevolent aid but to enable a man to earn a small weekly sum in such a manner that at the end of the war the community would benefit by the work done. The copyright of these drawings should belong to the man producing them, but the original or copies should be deposited with the Architects' War Committee for subsequent exhibition or publication.

The Council further suggested the desirability of a common appeal being made to architects by the Architects' War Committee, but that this appeal should be circularised by each architectural society amongst its own members, with a covering letter of support. The Society of Architects is willing to bear the entire cost of circulating the appeal and collecting the contributions to the fund from its members and their friends.

#### PROJECTED NEW WORKS.

##### *Cottages, Antrim.*

The Antrim Rural District Council is to erect fifty-seven labourers' cottages at an estimated cost of £10,768.

##### *Schools, Burnley.*

The Burnley (Lancs.) Education Committee propose to erect two council schools at a cost of £26,900.

##### *Parish Hall, Codicote.*

Plans have been prepared for the erection of a new parish hall at Codicote, Herts.

##### *Cottages, Gretton.*

The Gretton (Lincs.) Rural District Council have decided to purchase a site for the erection of workmen's cottages.

##### *Baths, Huddersfield.*

A scheme for the erection of public baths in Cambridge Road, Huddersfield, is under consideration.

##### *Abattoirs, Nelson, Lancs.*

Nelson Town Council has adopted a scheme for the provision of public abattoirs at an estimated cost of £14,000.

##### *Bungalows, Scarborough.*

The Scarborough Town Council propose to build better class bungalows in Peasholm Valley, and to put up a café and recreation hall.

##### *Bridge, Denbighshire.*

Denbighshire County Council have asked the Government to reconstruct Waterloo Bridge on the main road between London and Holyhead.

##### *Hospital Extension, Ipswich.*

The Local Government Board have held an inquiry into the application of the Ipswich Corporation to borrow £8,000 for the extension of the isolation hospital.

##### *Extension, Rawtenstall.*

Rawtenstall Town Council have applied to the Local Government Board for sanction to borrow £3,500 for the extension of the boiler house at the electricity works at Hareholme.

##### *Buildings, Bristol.*

The building schemes contemplated in Bristol include the erection of a drill hall in Old Market Street, enlargement of the museum, erection of two tobacco warehouses and a cold store and warehouse at the Royal Edward Dock, erection of a Seamen's Mission building at Avonmouth.

The War Office have also acquired at Avonmouth for the erection of a reinforced concrete building.

##### *Schools, Leesfield, Lancs.*

The Vicar of Leesfield, Lancs., that plans have been approved for building of the mixed school at Leesfield at an estimated cost of £4,000.

##### *Housing, Tynemouth.*

Subject to obtaining a satisfactory answer from the Government, the Tynemouth Council propose to build working-class dwellings on the Balkwell Estate, Shields.

##### *Military Houses, Winchester.*

The War Office have notified the Winchester City Council that they propose to erect 120 married quarters in the city will commence building operations at the beginning of October.

##### *Baths, Bradford.*

Bradford Corporation have applied to the Local Government Board for permission to borrow £5,740 for the construction of an open air swimming bath at Lister Park. An inquiry is being held to-day (Wednesday).

##### *Housing Scheme, Eastbourne.*

Eastbourne Town Council have adopted a housing scheme, which provides for the erection of 236 houses at a cost not exceeding £60,000. The Duke of Devonshire has provided the sites at a moderate price.

##### *£200,000 Scheme, London.*

The Metropolitan Asylums Board decided to proceed forthwith with the execution of large building works of a value of nearly £200,000, for which tenders have already been taken, and to expedite the progress of other building schemes in hand.

##### *100 Houses, Coventry.*

The Local Government Board have responded to the usual inquiry in the case of the Coventry housing scheme and have notified the Town Council to proceed at once with the erection of 100 houses for the tenants displaced by the Leam Street widening improvement. Contractors are to be invited.

##### *£1,000,000 Scheme, Rosyth.*

It is announced that a company has been formed for the purpose of developing the Admiralty land at Rosyth. Under the recent Act of Parliament, the Local Government Board for Scotland are empowered to make arrangements with a "utility company" for the erection of houses throughout Scotland for Government employees and for shopkeepers and others. The present company, it is stated, is by arrangement with the Local Government Board, will erect some 8,000 houses at Rosyth at an estimated cost of £1,000,000. The Local Government Board are empowered to advance to the company sums to the extent of £500,000 as may be required as the work proceeds. The remaining £500,000 will be subscribed by the public to the utility company. It is said that the larger proportion of the amount has already been arranged. The money will be advanced by the Government to the company at a reasonable rate of interest. The whole scheme is to be repaid within sixty years and the company is to be limited to a dividend of 5 per cent. It is hoped to commence building operations in a few weeks.



## ARCHITECTURE AND THE WAR.

## CURRENT CONTRACTS IN HAND.

order to restore confidence in the building trades, the following leading architects and others have been good enough, from patriotic motives, to allow the publication of their current and coming contracts. It is proposed to publish these columns open week by week, and architects and others in all parts of the country are invited to send similar lists of contracts for publication. In the following are the contract prices, where available, given in parentheses.

Mrs. Detmar Blow and Fernand Blay (Westminster) write:—

The following is a list of places in which we are carrying out building work. Total number of men employed is 1,300, and we think that this information is of more importance than the contract price or the name of the builder: Tisbury, Wilts; Tyneham, Dorset; Sandwich, Kent; Gt. Brickhill, Bucks; Hundon, Essex; Peatling, Leicestershire; Brampton, Yorks; Disley, Cheshire; and in various other places.

Mrs. Briggs, Wolstenholme and Co., F.F.R.I.B.A. (Liverpool):—

At Africa House, Liverpool (about £10,000). Alterations and additions to the Library, Walker Art Gallery, and Brown Museum, for the Liverpool Corporation (£12,000). Laying out a new village, Liverpool University (about £10,000). Nurses' Home, Stanley Road, Liverpool (£6,000). Clock Tower, Bluecoat Hospital, Liverpool (about £10,000). School for the Liverpool Corporation (£19,000). Wallasey Town Hall (£82,000). Public Halls, Blackburn for the Corporation (£70,000). Alterations and additions to Blackburn Town Hall (£35,000). House at Caldy, Cheshire (about £5,000). House at Caldy, Cheshire (about £2,500). House at Caldy, Cheshire (about £2,000), and sundry other jobs.

Walter Cave, F.R.I.B.A. (London),

Page Homes, Whiteley Park, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000.

Charles Holden, F.R.I.B.A. and Holden, London, W.C.):—

The works we have in hand are proceeding normally. No work has been delayed or delayed, and several contracts have been signed and works commenced since the outbreak of the war."

Mrs. Nicholson and Corlette, F.R.I.B.A. (London, W.C.):—

At Hallow Park, Worcester. New Church of St. John Rastrick. St. Mary's Church, Hornsey: New South Porch. St. Mary's Church, Reading: Refitting Lady Chapel. New Church of St. Michael, Hull. St. Nicholas Church, Hull: Alterations and additions. St. Peter's Church, Lincolnshire: Restoration of tower. Cottage, Netley Hill, New Vicarage, Westcliff-on-Sea. St. Lawrence, Crediton. St. Mary's Church, Cockington: Screens and case. St. Paul's Church, Hali-fax. General repair work, etc.,

proceeding at Lincoln, Wells, and Lichfield Cathedrals, and at New College, Oxford.

Mr. H. Austen Hall, F.R.I.B.A. (London, W.C.), writes to say that the new offices for the Metropolitan Water Board (cost about £85,000) are fairly certain to be proceeded with. Other works are either just completed or definitely postponed until after the war.

Mr. Robert Carlyle, Builder (Manchester), writes:—

"I have pleasure in informing you that my works are on full time. The following is a list of contracts in hand and the progress of which, I am glad to say, is normal:—Rebuilding large business premises, Manchester. Extensions to School of Art, Manchester. New Sanatoria, Baguley, Cheshire. Five hospital blocks, Manchester. Rebuilding warehouse after fire, Manchester. Extensions to Generating Station, Stretford. Mason work at Assize Courts, Manchester. Extensions to tram sheds and new stores and offices, Manchester. Motor garage, Manchester. Carnegie Library, Didsbury. School extensions, Stretford. Transit shed, Trafford Park. Alterations to business premises, Manchester. Hotel restoration, Manchester. Three of the above jobs have been secured since the commencement of the war.

## R.I.B.A. TESTIMONIES OF STUDY: APPROVED DESIGNS.

The Board of Architectural Education announce that the designs submitted by the following students, who are qualifying for the Final Examination, have been approved:

## SUBJECT XV.

(a) *Design for a Museum (detached) in the Park of a Country Town.*

|                  |                     |
|------------------|---------------------|
| Adams, P. J.     | Herford, T.         |
| Alison, W.       | Holt, G. H. G.      |
| Allison, W.      | Hossack, J.         |
| Armstrong, J. R. | Howcroft, G. B.     |
| Batty, W. A.     | Jacob, J. H.        |
| Brooks, C. J.    | Jones, L. F.        |
| Brown, J. M.     | Jones, W. O.        |
| Burford, J.      | Jopling, A. B. B.   |
| Butt, P.         | Kassem, H. Z.       |
| Carey, J.        | Koch, M. D. N.      |
| Carreras, L. E.  | Lancaster, C.       |
| Cheek, C. C.     | Leadam, G. S.       |
| Ching, W. L.     | Lister, H. A.       |
| Clare, A. D.     | Loweth, S. H.       |
| Cosser, G. A.    | Maddock, R. H.      |
| Cullen, A.       | Moore, E. S.        |
| Currie, J. K.    | Moscrop, W. N. J.   |
| Davison, W. R.   | Moss, D. J.         |
| Donaldson, B.    | Nathanielsz, J. J.  |
| Dowsett, T. W.   | Pace, C. L.         |
| Duncan, R. A.    | Palmer, J.          |
| Evans, T. C.     | Robertson, G. A. K. |
| Fernyhough, S.   | Ryan, H. A.         |
| Forbes, A. S.    | St. Leger, C. D.    |
| Ford, L. S.      | Sanders, T. A.      |
| Frater, R.       | Shenstone, G.       |
| Gooder, F. E.    | Spence, A. T.       |
| Gossling, H. F.  | Takekoshi, K.       |
| Graham, R. D.    | Taylor, J. A. C.    |
| Hague, H. V.     | Walch, J. B. M.     |
| Hamilton, A. B.  | Whitehead, P.       |
|                  | Wilkinson, F.       |

(b) *Design for an Open Timber Roof to a School Hall.*

|                  |                    |
|------------------|--------------------|
| Adams, W. A. C.  | MacMillan, A. L.   |
| Armstrong, J. R. | Moore, J.          |
| Aslin, C. H.     | Picton, C. S.      |
| Booker, G. A.    | Pidsley, W. G.     |
| Cawthell, R.     | Robertson, M.      |
| Craske, C. W.    | Smith, A.          |
| Fyfe, J. S. H.   | Toothill, J. C. P. |
| Gray, G. H.      | Vinden, G.         |
| Grellier, C.     | Walker, D. H.      |
| Lavender, E. O.  | Walker, H. F.      |
| Lawton, W. V.    | Wright, C. H.      |

Designs for other subjects from the following candidates have also been approved:

|                   |                 |
|-------------------|-----------------|
| Burford, J.       | Hamilton, A. B. |
| Carmichael, D. A. | Mortimer, A. L. |

## BOOK NOTICES.

*The Architecture of Humanism.*

Histories of architecture we have had galore. It is time that there should also be a philosophy of architecture. Unfortunately the Spinozas, the Kants, the Schopenhauers, and the Hegels, who have discoursed at such great length upon aesthetics, have never brought their theories into sufficient relation with concrete examples, and, so far as the practice of the visual arts is concerned, their speculations have been sterile. On the other hand, most of the members of our profession who employ the written word to elucidate their art are debarred by a lack of philosophical equipment from making a logical synthesis of it, and they are further hampered by their acquiescence in the popular doctrine that the true artist thrives on delicate emotions and has no truck with anything so cold, so harsh, so prosaic as reason. It has been left to Mr. Geoffrey Scott to produce the first considerable book on architectural philosophy that has yet appeared in the English language—one might truthfully say in any language—and as such his "Architecture of Humanism" has wide significance. It is so tightly packed with matter that the choice of quotations is exceptionally difficult, but one may proceed to cull a few sentences which will give a rough idea of the main points of his thesis. It may be remarked that though the book is solid in intellectual substance, its literary style, so far from being heavy, is graceful and fluent, and such difficulties as the reader may experience are due to the intricacy of the subject-matter and not to any Meredithian obscurity of expression.

The book may be divided into three parts—a consideration of what architecture is not and an account of how it ever came to be so misconstrued; a consideration of what architecture is; and, lastly, an analysis of the source of the pleasure which we derive from it. The first, the destructive portion, is calculated to give intense pleasure to those who have been exasperated by that too common type of amateur criticism of architecture which concerns itself with everything else in the world except architectural form. Mr. Scott is aware that it is not sufficient to refute false doctrines. Like the spawn of some horrid fungus, they grow to life again unless the soil from which they spring is isolated and sterilised. In an analytical spirit he not only exposes popular errors, but makes clear their origin. Thus, it is to be hoped that nobody will be so benighted as ever again to give expression to the Romantic fallacy, the mechanical fallacy, the ethical fallacy, or the biological fallacy, which, according to Mr. Scott, together comprise the *horrendum pudendum* for all true lovers of architecture. Of Romanticism we are told that it "idealises the distant both of time and place," "it identifies beauty with strangeness," "it is always idealistic, casting on the screen of an imaginary past the projection of its unfulfilled desires," "it is the cult of the extinct," it is anything, in fact, *except* a mode of thought which leads to the creation of plastic forms. The author shows how by this species of taste the artificial (all conscious and formal design) was scorned, "and it was scorned simply because it was natural, which no art can hope, by whatever casuistry, to become."

In his chapter on the Mechanical fallacy



he deals faithfully with the constructionists who reduce architecture to terms of engineering, in spite of the fact that he presents their case far more skilfully than they have ever been able to do themselves. He points out that "The æsthetic efficacy of structure does not develop or vary *pari passu* with structural technique. They stand in relation to one another, but not in a fixed relation. Some structural expedients, though valid technically, are not valid æsthetically, and *vice versa*."

The Ethical fallacy is the next subject, and in discussing this Mr. Scott is eminently just to Ruskin, who, in spite of his narrow Puritanism, yet "asserted the psychological reference of architecture" and was subconsciously aware "that the arts must be justified by the way they make men feel; that apart from this, no canon of forms, academic, archæological or scientific, could claim any authority whatsoever over taste." The Biological fallacy is the product of the evolutionary school of thought which is so completely occupied in accounting for facts that it fails to estimate their significance. "The question is no longer what a thing ought to be, no longer even what it *is*, but with what it is connected." It might be added that those who are without a standard of value are not even competent to *explain* the work of artists who have. The conclusions of Mr. Scott resemble those arrived at in Nietzsche's magnificent essay, "The Use and Abuse of History," in which it is pointed out that if there is no constructive purpose behind the historical one the creative instinct is sapped and discouraged. It is indubitable that too much attention to the mere sequence of events in architectural development has impaired the mentality of a whole generation of students.

The author's own attitude towards architecture is partially explained in the following paragraph: "Criticism is in its nature intellectual. It seeks to define its subject-matter in purely intellectual terms. But taste—the subject-matter of criticism—is not purely intellectual. The effort of criticism to 'understand architecture has done no more than add its own assertions to the confused assertions of mere taste. It has not rendered taste intelligible." According to him, our appreciation of plastic forms is due to an unconscious comparison between them and our own physical states. Our elementary ideas of space and mass are derived from the intimate association of our minds with the structure of our bodies. It is by this means alone that we become capable of such conceptions as distance and ponderability. Thus we judge plastic forms not with our reason alone, but with our whole personalities. We are influenced by sensations and a kind of physical memory. The author says: "We transcribe architecture into terms of ourselves. This is the humanism of architecture. The tendency to project the image of our functions into concrete forms is the basis, for architecture, of creative design. The tendency to recognise, in concrete forms, the image of those functions is the true basis, in its turn, of critical appreciation." This method of perceiving and interpreting what we see, he claims to be perfectly natural. "It is the way of the poetic mind at all times and places, which humanises the external world, not in a series of artificial conceits, but simply so perceiving it. The scientific perception of the world is forced upon us; the humanist perception of it is ours by right." There is no space here to refer even to a tithe of the good things in the book, and it only remains to

recommend it to the attention of the reader.

"The Architecture of Humanism: a Study in the History of Taste." By Geoffrey Scott. London: Constable & Co., price 7s. 6d. net.

#### "Commercial Paints and Painting."

What an architect wants to know about painting is set forth very usefully in Mr. Arthur Seymour Jennings's "Commercial Paints and Painting": it shows, he says, "how a thoroughly durable job of painting in its many and varied applications may be done at a minimum cost consistent with good material and good workmanship." At the outset we get the very useful reminder that the durability of paint is a most important quality because of the cost of labour, the expense of the application being twice that of the paint. In simple work, done from the ground, such as plain fence or wall work, the cost of labour would be proportionally less, but in work requiring the erection of elaborate scaffolding, or involving exceptional difficulties, such as the painting of a railway station roof, or a large iron bridge, the item for labour might exceed two-thirds. Hence, as Mr. Jennings works it out, the economy of employing good paint instead of that which is poor, is demonstrated as being in the care taken, represented, at the end of thirty years, by the difference between £120 and £200; the theorem supposing that the poor paint would have to be renewed every three years, while the good would require renewing every ten years only. It is recognised by the author that ten years is a long time for paint to be expected to last, as leases usually stipulate that outside work shall be repainted every three years, and inside work every seven years; but he contends that, given a really first-class paint, designed for the special purpose for which it is required, it should last for at least six years outside, and twenty to thirty years inside, and he knows of grained work that after fifty years has been found in excellent condition, except where it has been injured by knocking. Durability, then, is a serious consideration in specifying paint, and, generally speaking, that quality naturally implies increased first cost, which, however, on the larger view, is demonstrably preferable to the cheapness that involves frequent renewals. It is suggested that, since there can be no one paint that is suitable for all materials and circumstances, different surfaces requiring entirely different paints, the architect, instead of always specifying "four coats of lead and oil," should get into closer touch with paint manufacturers, of whom the leading firms now employ specially trained men to give advice as to the choice of suitable paint for stated conditions.

If he cares to master the contents of this book, however, the architect will be in a position to choose for himself, for there is a long chapter on the paint most suitable for different surfaces, besides chapters on all the materials and tools used in painting, tests for materials, cause and prevention of defects, the drawing-up of specifications, and painting by mechanical means, such as spraying, dipping, stencilling. The volume, which is fully illustrated, can be unhesitatingly recommended for its thoroughly trustworthy guidance on matters about which the average architect is but ill-informed.

"Commercial Paint and Painting: A Handbook for Architects, Engineers, Property Owners, Painters and Decorators, etc." By Arthur Seymour Jennings, Fellow of the Institute of British Decorators, etc. Pages xii. + 224, 8½ by 5½ ins., price 6s net. London: Constable & Co., Ltd., 10, Orange Street, Leicester Square, W.C.

## COMPETITIONS.

### Mural Decoration Competition.

A competition has been promoted in connection with the mural decoration of the new Commonwealth of Australia building now being erected on the Aldwych. All, twelve paintings are required. The sketches are to depict incidents in Australian history, or features of Australian scenery, or of Australian productive activity. The competition is open to artists born in Australia, or who have been in Australia five years and upwards, who are now resident in Australia. Sketch designs must be forwarded to the High Commissioner's office, London, later than January 15, 1915, and judged by a committee appointed by the High Commissioner for Australia, 72, Strand, S.W.

### Housing Scheme, Potton, Beds.

It has been recommended that a competition be held for the laying-out of land and the design of houses at Potton, Beds., based on the designs prepared by Mr. Homer and Lucas, of London.

### Technical Schools, Southport.

A five-page document has been issued by the Southport Corporation, giving answers to questions raised by competitors in respect to the conditions governing the competition now in progress for proposed new Technical Schools. The information being doubtless already in the possession of competitors, no useful purpose can be served by a fuller reference to the matter in these columns.

### An Asphalt Contract.

Claridge's asphalt is being used for the new buildings of the Institute of Chemistry, Russell Square, W.C.

### The First Atelier.

The new session of the First Atelier d'Architecture, 16, Wells Mews, Strand, W., will begin on September 1st, when the esquisse for the first competition will be held. In order to facilitate arrangements, members of the Atelier are asked to notify the secretary at once. The Sous-Patron, M. Chaires, is at present serving with the French Army. During his absence his duties will be undertaken by a deputy.

### "Pudlo" during the War.

Owing to the war, there are difficulties for many architects and contractors having specified foreign-made materials. They will now find it difficult, if not impossible, to obtain the goods. Even if they could get them, there is certain to be a shortage of labour for supporting our enemies. The proprietors of "Pudlo" are asked by the proprietors of "Pudlo" to state that this material is British-made throughout; the ingredients are all British, and no imported materials are used in its manufacture. They are still running as in normal times, the makers have an emergency stock of many tons, so that there will be no delay in the execution of orders.



# PUDLO

Makes Cement Waterproof.



## IT'S BRITISH!

Many Architects have written assuring us that they will only specify a British waterproofer for their cement work. Some thought all waterproofing products were made in Great Britain.

Enquire where any waterproofer is made, by whom it is marketed, and do not be misled by the title of the firm even if it has a British flavour. By fostering home industries we nurture British Supremacy.

We do not know of any waterproofer which is more economical than the powder Pudlo. Nor do we know of one which has passed through the stringent tests to which Pudlo has been subjected by Faija, Kirkaldy, and other experts.

Add to these tests the fact that it was invented by an English chemist, that it is made at King's Lynn by British labour, and sold by Britishers.

Specify the powder Pudlo for tanks, reservoirs, vertical and horizontal damp courses, rough cast walls, garage pits, stoke holes, and under wood floors.

*Asphalt Roofs and the waterproofing of Basements are executed better, and more economically done, with Pudloed cement. By our licensees (if desired under guarantee) or by local builders.*

WRITE FOR FREE PUDLO BOOKLET.

## BRITISH!

Invented by a Britisher.  
Made by Britishers.  
Sold by Britishers, viz.:

KERNER-GREENWOOD & Co., ANN'S PLACE, KING'S LYNN.



## ELECTRICAL NOTES.

*The Lamp Position.*

One of the chief effects of the war will undoubtedly be to the advantage of the United States in regard to the sale of electrical supplies in this country. British manufacturers are admittedly not in the position immediately to meet the demand due to the cutting off of the Continental supplies, partly owing to want of manufacturing facilities and partly to shortage of capital at the moment—capital which would be necessary to enlarge their works. But the United States has the works and the capital, as well as the ships, and we are likely to see therefore a large increase in American imports, unless our manufacturers take time by the forelock. Of course, it requires courage to spend money just at present in enlargement of works, but it may be pointed out that the demand for electrical supplies has probably fallen off considerably and will remain at a lower level for some time. Hence the increased manufacturing facilities need only be gradual, and it would be a pity if we were to let the opportunity slip of securing to this country the German and Austrian trade—by letting it be seized by the Americans, when a little pluck and initiative would keep it in our own hands. The question of electric lamps is, however, to be differentiated from that of other electrical supplies. The elimination of Germany and Austria should make a great difference. It will stop a large amount of infringing lamps from coming into this country. In spite of the action of the Tungsten Lamp Association and the many injunctions which they have obtained against dealers, there is no doubt that a fairly large business of this kind was still

being done. The only sources now are Holland and the Scandinavian countries, and although some German lamps may also find their way in from these sources, it will be much easier to locate them.

The question arises, how will the large British lamp makers be affected by the war. There are, as is well known, three of these who form the nucleus of the Tungsten Lamp Association, and another three who are outside, of which we believe two have had writs served on them. There are also a few smaller makers, either working under license or awaiting writs. Without entering into the questions of the sources of tungsten, and whether the supply is large or small, it is obvious that, owing to the period of the year, all the makers will have laid in a sufficient supply, either of the raw material or of the drawn wire, to last well into the spring. Of those who make drawn-wire lamps, at least two manufacturers draw their own wire, and one is laid out for the manufacture of half-watt lamps. Of those who manufacture squirted filament lamps, there is probably no doubt that all prepare their own filaments. Apart from tungsten lamps, there is likely to be a very large demand for carbon lamps, particularly from the Government, and here several large firms are particularly well situated as regards manufacture. The only difficulty that is likely to present itself is in regard to the supply of the glass bulbs. We believe we are correct in stating that only one large firm of lamp makers is in a position to manufacture bulbs on a commercial scale, owing to foresight on the part of the directors. So we are likely to see a development in this direction at least, which will not return to Germany when the war is over.

While on the subject of lamps, two new types may be mentioned. The first is the

Mazda Meridian Lamp, made by the B.T.H. Co. This type has been specially designed to give a downward distribution of light without the use of reflector, although, if desired, a close-fitting reflector can be attached. The lamp, which is suitable for use over workbenches, tools, desks, billiard tables, and other small areas, is made in three sizes—namely, 40 and 60 watts for 100-130 and 150-200 volts. Another new type is the special traction lamp made by Messrs. Siemens. These are Wotan lamps and are specially designed where the cost of energy does not enter into the employment of Tantalum Filament Lamps. Owing to the special winding of the filament, the light is emitted in all directions other than the cap end, and the filament is claimed to be particularly resistant to shocks and vibration.

With regard to the capturing of the German trade, the General Electric Co. write: "It is rather premature to talk upon the best methods to be adopted to capture German trade. We ourselves are straining every effort to fill the gap occasioned in this country by the cessation of German imports of electrical goods. We think that if other English manufacturers did the same it would establish a foundation for securing later on the trade hitherto done by Germany with her Colonies beyond the seas and other countries."

*Hospital Stoves.*

The Infectious Hospital, Arbroath, is being supplied with warm-air ventilating patent Manchester stoves with desmo smoke flues, by Messrs. E. H. S. and Brother, Ltd., of Failsworth, Manchester.



## FITTINGS for SEMI-INDIRECT ILLUMINATION

The Semi-indirect System of Illumination is recognised as possessing all the good features of direct or totally indirect lighting without these inherent disadvantages. We have now ready a representative selection of designs suitable for use with "Holophane" glassware, or our own special types which have considerable merit from an illumination and decorative standpoint.

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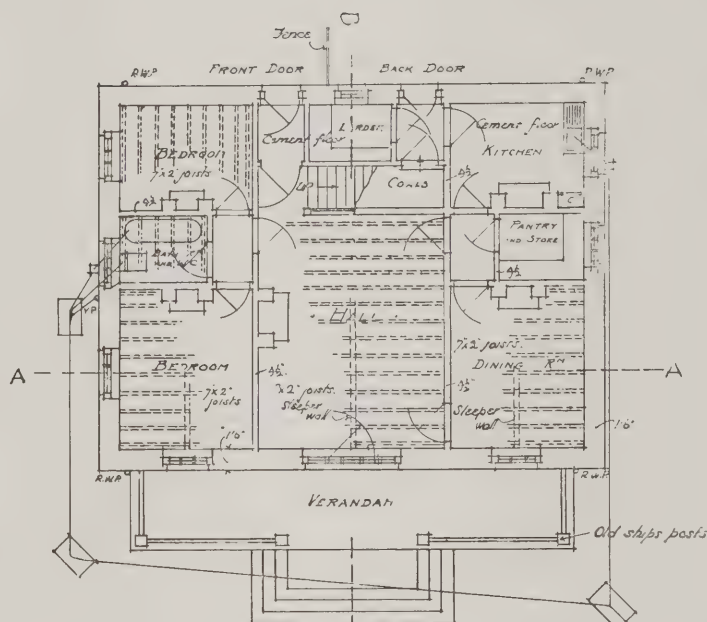


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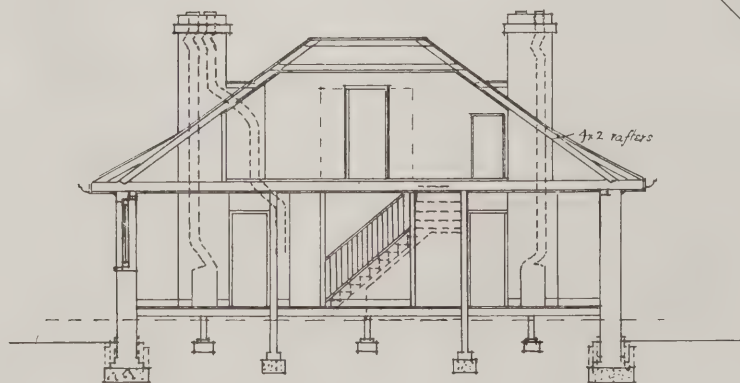


# HOUSE FOR MISS WOODLEY. PR

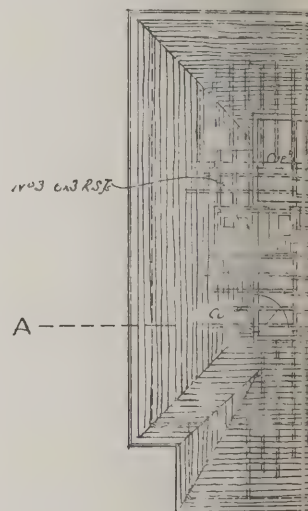
SCALE OF FEET.



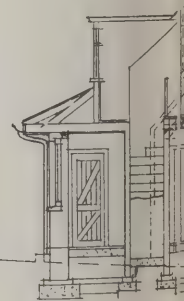
GROUND FLOOR PLAN



SECTION AA



ATTIC

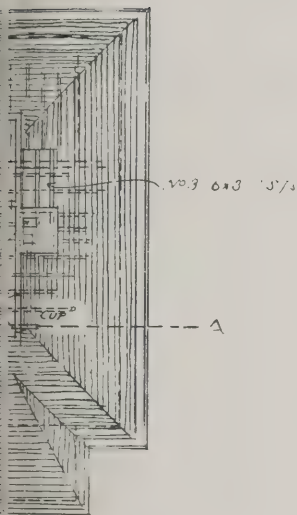


WORKING DRAWINGS BY WELL-KNOWN ARCHITECT  
RICHARDSON AND



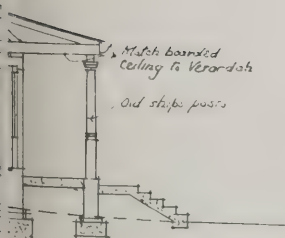
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Nº



SIDE ELEVATION

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VASES. X.—VASE ON THE BASSIN DE NEPTUNE, VERSAILLES.







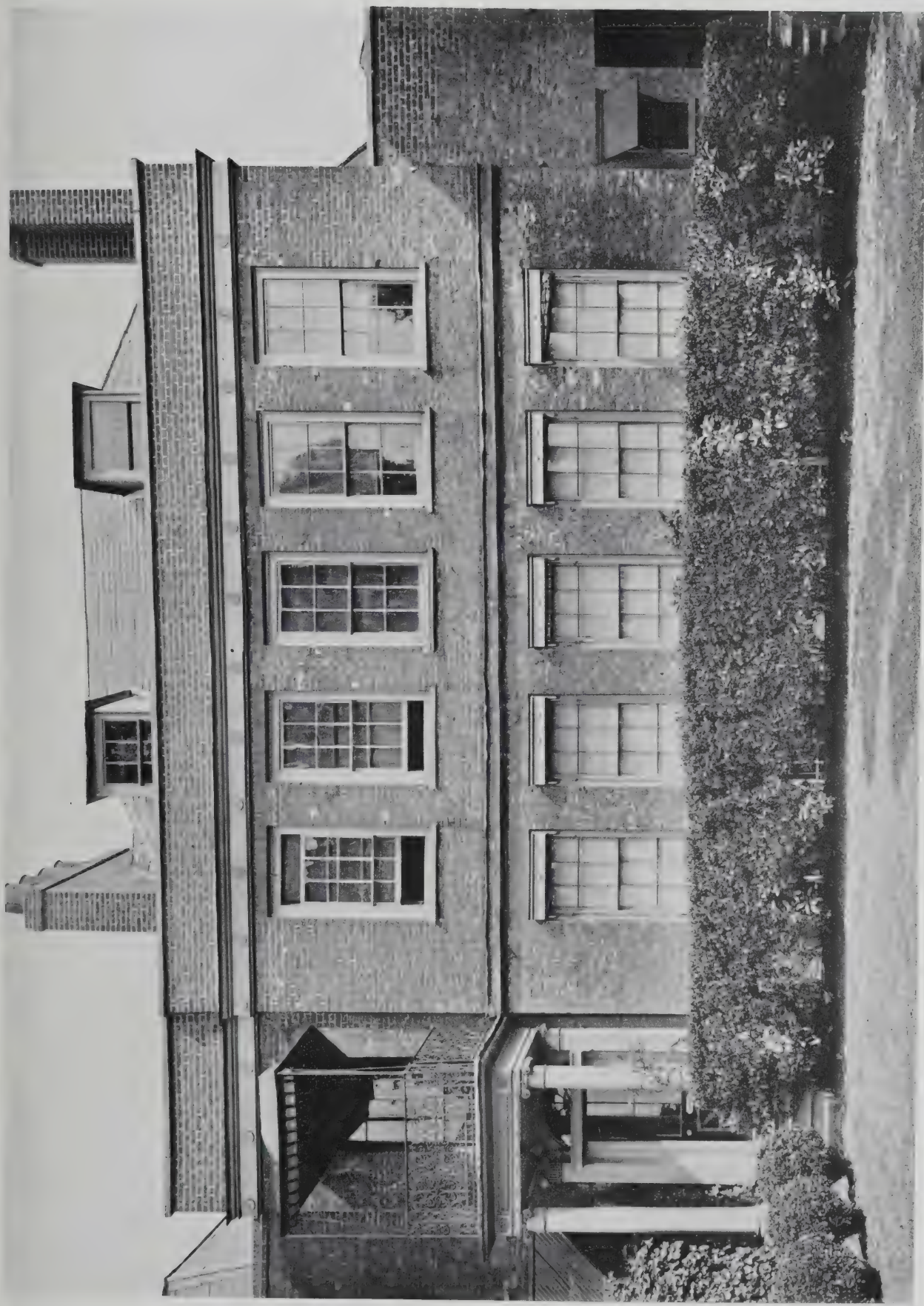


MODERN SHOP FRONTS. XIII.—CONFECTIONER'S SHOP, HAAG STAAT, THE HAGUE, HOLLAND.









SMALL HOUSES OF THE LATE GEORGIAN PERIOD. XXV.—THE VICARAGE, 22, LOWER MALL, HAMMERSMITH.



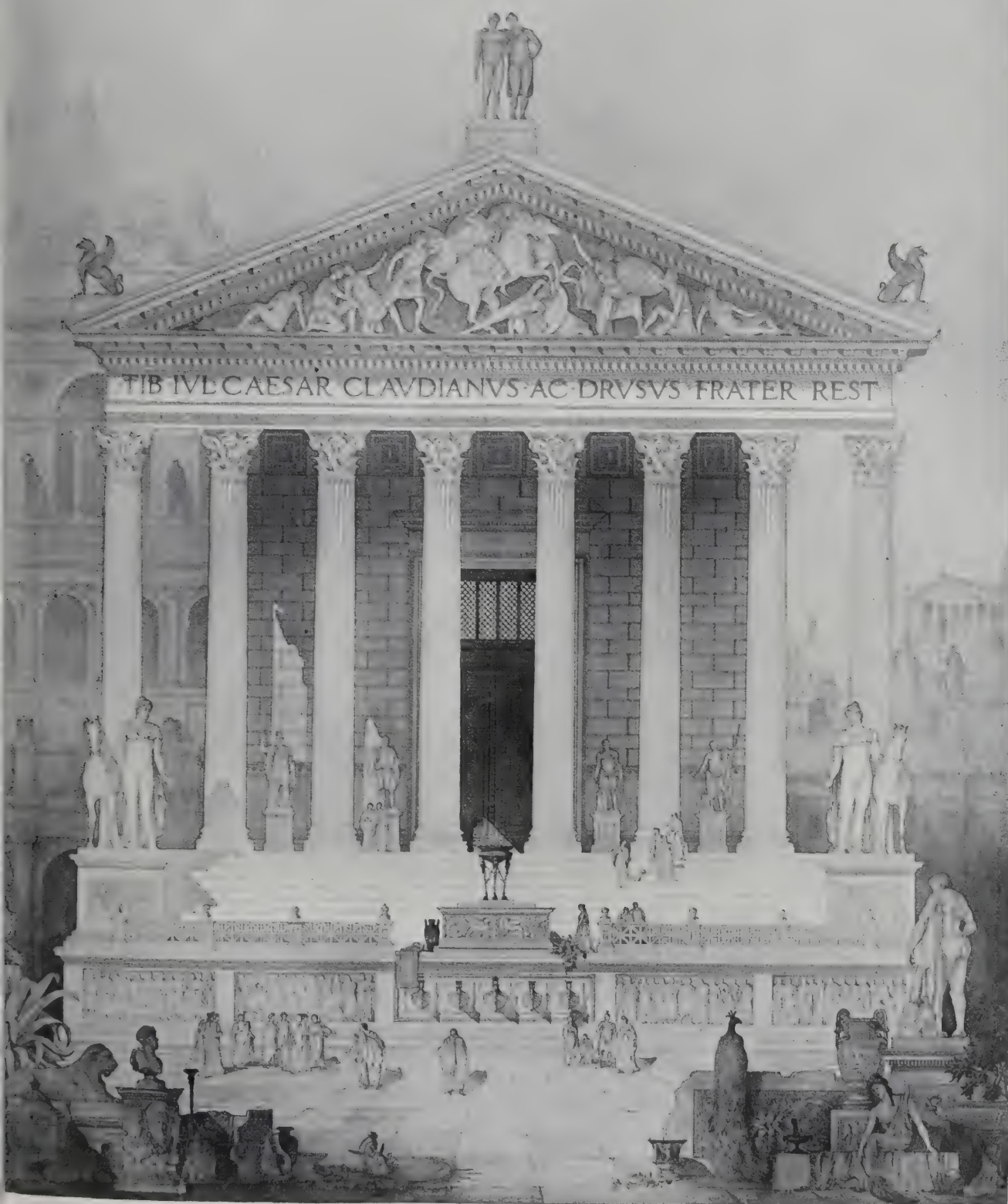




# TEMPLE OF CASTOR AND POLLUX

FORVM ELEVATION

ONE QUARTER INCH SCALE



STUDENTS' DRAWINGS. XXIX—RESTORATION OF THE TEMPLE OF CASTOR AND POLLUX.

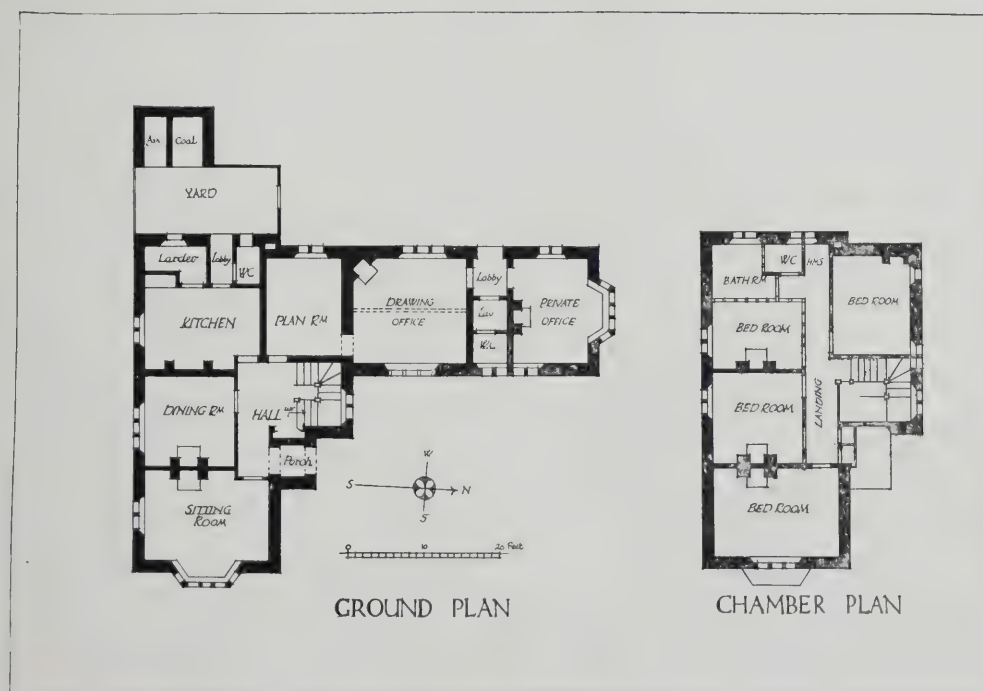
(ENVOIS, AMERICAN ACADEMY IN ROME SCHOLARSHIP). BY E. F. LEWIS.

(Reproduced by courtesy of The Massachusetts Institute of Technology.)









MODERN DOMESTIC ARCHITECTURE. XXXIV.—COTTAGES AT SHERFIELD MANOR, NEAR BASINGSTOKE, HANTS.

FAIRFAX B. WADE, F.R.I.B.A., ARCHITECT.









CURRENT ARCHITECTURE. LXXX.—THE ACADEMY, HAMILTON: CENTRAL HALL.  
ALEX. CULLEN, LOCHHEAD, AND BROWN, ARCHITECTS.







# THE ARCHITECTS' & BUILDERS' JOURNAL.

Wednesday, September 9, 1914.

Volume XL. No. 1027.

No. 101.



*(From Piranesi.)*



# THE ARCHITECTS' & BUILDERS' JOURNAL.

SEPTEMBER 9, 1914.

CAXTON HOUSE, WESTMINSTER.

VOLUME 40. No. 10.

## EDITORIAL.

NO very definite attempt has yet been made by architectural or building organisations to put an end to the awkward situation which has arisen as a result of the European war. As we pointed out last week, some standard method of tendering must be devised if the building trade is to maintain its normal course; but apparently no official action is being taken to achieve this object. So far as our information goes, the facts of the matter are as follows: The Institute of Builders have issued to all who might be concerned a circular letter couched in the following terms: "In view of the international crisis now existing, and of the inability to foresee what may happen, it has been decided to advise that in all future building undertakings members *should endorse all their tenders with the following proviso*: 'This tender is based upon the normal rates of wages and materials prevailing prior to August 4, 1914, any advance in cost of labour or material to be added to the amount of the contract, upon satisfactory proof being given of such increase. Any difficulty or delay in obtaining labour or material to be the subject of a reasonable extension of time.' It is with no desire to secure increased prices or to take advantage of the present crisis that this recommendation is made, but as a precaution against possible eventualities which I am sure you will appreciate."

A copy of this circular was sent to the R.I.B.A., and the Council, according to the current issue of the "Journal," have replied that the Institute could not agree to a circular in such vague terms, as it would not afford building owners any reasonable guarantee either as regards cost or time of completion. The Council added that they had no doubt that individual architects would do their best to induce clients to appreciate the position of the builders. Now, all this is quite remote from the point at issue. It is impossible for builders to give any guarantee to building owners; they cannot be expected to know to what extent the prices of materials may fluctuate during the execution of a contract under present conditions. Builders are powerless to control prices, and it is imperative that they should protect themselves against loss. Therefore, no one can complain about the action which they have taken. It is obvious, however, that the position cannot be left to disentangle itself. If nothing is done, the client, in self-defence, will take the only course which is open to him—that is, abandon building operations. Without a fairly definite idea of what his building is going to cost, no building owner can reasonably be expected to proceed with work during the present crisis. The first thing to do, therefore, is to reassure the client, and the only way to achieve this end is, as we pointed out last week, to get the Government to establish a schedule of prices of building materials. The architect with a guarantee of this sort in his hand

is in a strong and sure position. He can face his client fairly and squarely, and assure him definitely that building is not going to cost more than a certain sum. Conceivably it may cost less.

Individual architects may do their best "to induce clients to appreciate the position of the builders," but this is not enough. As we showed in our last issue, the attention of the R.I.B.A. was directed to the matter of the pricing of tenders so long ago as August 12, yet the Institute have done nothing except state that the Practice Committee will consider the question in October! Surely such delay is perilous. We earnestly appeal to the leading architectural and building bodies to take this real matter in hand at once; the confusion which it cannot be allowed to go on.

There was once a familiar heading in the news columns—"How to Brighten Cricket": that, presumably, being a matter of very grave import. We now have an architectural application of it. The Society of Architects, in the September issue of its "Journal," seeks to discover some means whereby some of the meetings may be made more attractive, and asks for some practical suggestions to this end. Apparently the cue has been given by a New South Wales architect, which deplores the meagre attendance of members at the annual meetings of the N.S.W. Institute of Architects. One of the absentees was buttonholed on the subject, and his answer was, "What is the object of any of the meetings, annual or otherwise, to get large attendances?" It may be argued that architects should attend the meetings of their societies as a matter of duty, but the fact is that they do not, and, therefore, so, says the Society of Architects "Journal," should be attracted by "the discussion of subjects of architectural moment; by short papers giving scope for debate on questions exercising the minds of the Executive." The absentee had a good idea. "Let the Council give us something to come along with something lively, and on new lines. Let us talk about things that will help us in our profession, and make the Institute as a body." We have doubts about the wisdom of discussing "bright subjects of architectural moment"—this has rather the smack of an endeavour or popular pleading; but we feel a great deal of sympathy with that absentee. Speaking from our own experience, we must say that the low attendance which characterises the meetings of architectural societies in this country is due entirely to the dull subjects which are discussed and the dull manner in which papers are delivered. We have always contended that far too many papers of an archæological character are included in the syllabus.



means traversing the same familiar ground in the same way. More than once we have taken up this subject in connection with presidential addresses. We want is individual expressions of opinion, original comment, good delivery, and as high a level of literary attainment as possible. If we recall, for instance, a paper like Mr. Billerey's on "Modern Architecture," or Professor Lethaby's "Some Things to be Done," and compare these with the stock paper which seems to be expected as the proper thing, it will be recognised how much justice there is in the absentee's comment. Our advice to all the members is to pay special attention to topics of architectural moment, and particularly to those of practical importance. When a paper like "The Planning of Modern Cities" is read at the Institute, the meeting is well attended, but when the topic is "Colour in Architecture" or "Some Fragments of Scandinavian Building," it is not surprising that the members prefer to go away, rather than be hopelessly bored for a couple of hours.

\* \* \* \* \*

Arguing by evidence which is constantly coming to the architects and architects' assistants appear to be declining in considerable numbers. Many offices, I am sure, have lost the bulk of their assistants, and in some cases principals have been left altogether alone to carry on practice by themselves as best they may. The R.I.B.A. is asking for the names of Members and Licentiates who are serving with the Regular and Territorial Forces. On our own part we shall be glad to publish lists of those members of the profession who have answered to their country's call, and to invite readers to let us know of those instances which come within their own purview, mentioning the circumstances in each case. The Architectural Association, established a War Service Bureau, and from Mr. J. H. Potter, its hon. secretary, we have received the following communication:—"For the convenience of all members of the architectural and allied professions who wish to respond at once to Lord Kitchener's appeal, it has been arranged that all men enlisting at Whitehall in the various regiments of His Majesty's forces through the Architectural Association will be kept together and sent to whichever regiment they may choose, provided such regiment is not recruited to its full strength. Batches of our members have already been sent for the Royal Engineers, where their technical training should stand them in good stead, and those who prefer to join the cavalry, artillery, or infantry can do so, and it remains for the men to say which branch of the service they will go. As I am arranging to send up batches from time to time to those wishing to enlist communicate with me in as possible?"

\* \* \* \* \*

As the several sections of political opinion have tended to sink their differences at a time of national crisis, so the Royal Institute of British Architects, being above all else to present a united front at the present time, is pursuing a policy which avoids matters of internal policy on which there may be divergence of opinion. We draw this conclusion from the attitude which the Institute has adopted in connection with the proposed New Charter. The chairman of the Institute's Provisional Committee (London), which was formed for the purpose of safeguarding the interests of Licentiates and others, addressed a letter on this subject to the President of the Institute, to which Mr. Ernest Newton has replied that at the present time the Institute will not be occupied with the question of the New Charter, nor take any steps in connection with it—a wise decision which we feel will be approved by the profession.

From one of our readers, Mr. Sidney J. Adams, we have received the following poetic appeal, which, on grounds of patriotism, we are happy to publish. We may add that the verses may be republished, without fee, by anyone who is animated by the same motives as those which have directed its production and its publication:

#### ARISE! AWAKE! PREPARE!

Throughout her isles the voice of Britain calleth to her youth,  
 "Ye that would keep your soul alive with Honour, Valour, Truth,  
 Ye that hereafter still would be my sons and bear my name,  
 Give heed unto my voice—Behold! your hearts and hands I claim.  
 Infernal and perfidious might doth like a python fold  
 The friend who trusting in my word strives in that strangling hold—  
 For all that makes a nation, strives—for Home and Liberty—  
 For man's great birthright strikes: sore wounded bleeds for loyalty.  
 Through Belgium all but whelmed, through France that monstrous might is hurled—  
 To reach the sea-built Power that stands the bulwark of the world.  
 To arms! The blood of innocence to Heaven for vengeance cries,  
 While stricken Belgium warring yet doth hope and agonise.  
 To God the dumb, dead lips appeal of wives and children slain,  
 The ruined hearths, the wrecked and smoking altars of Louvain.  
 Why wait ye when the ruthless traitor upright still doth stand  
 Who sought to pay the Judas-price of treachery to your land!  
 Well may the aged envy you for your youth in this great hour,  
 And women sigh for manhood and the stricken for your power!  
 O splendid hour! when Duty beckons and when Honour leads,  
 Even as they led your fathers, on to match your fathers' deeds!  
 Now, by the spirits of your sires, arise! the thunders roll,  
 Whose summons seeks and proves the secret virtue of your soul,  
 For in God's scales of Justice have I cast my ancient dower,  
 And staked for Faith and Truth this Realm, this Liberty, this Power;  
 Yea, seeing that void of Honour Life disowned and fallen lies,  
 To Honour's triumph I am vowed or righteous sacrifice.  
 Shall I call twice for you? To arms! Awake! Arise! Prepare!  
 Your brethren on the seas seek out the boaster in his lair:  
 My ships crowd homeward with your kin; you must I call again—  
 Must they, your brethren, still the battle's avalanche sustain—  
 Column on column, weight on weight, and look for you in vain?  
 There some have won their rest and wreath already, yielding breath  
 For me and for your sake, my children, victors in their death.  
 O little band of heroes—stricken hard, sore wearied,  
 Let none lament you; ye are mine, the living and the dead;  
 Your honourable names shall shine and shall be envied  
 Both now and when my conquering legions gather at my side,  
 And I shall bless them, bind their wounds and crown them with my pride."

SIDNEY J. ADAMS.

\* \* \* \* \*

Architects will regret to learn of the death of Mr. E. Ingress Bell, F.R.I.B.A., which took place on August 30 at Worthing. Mr. Ingress Bell, who was in his seventy-eighth year, was well known no less as an artist than as an architect. For many years he was on the architectural staff of the War Office, after relinquishing which appointment he entered into collaboration with Sir Aston Webb, and together they



were remarkably successful in several important competitions. The first and the chief of these was the Law Courts at Birmingham, followed by the United Service Institution in Whitehall, the new Christ's Hospital at Horsham, and Birmingham University. Other buildings carried out under the partnership included the Metropolitan Life Assurance Offices in Moorgate Street, the new Law Courts at Hong Kong, and new buildings at King's College, Magdalene College, and Gonville and Caius College, Cambridge. As an artist, his designs for stained glass were especially notable, being characterised by much vigour and refinement.

### HERE AND THERE.

SINCE last week, when I made the briefest reference to the bombardment of Paris in 1870, and M. Thiers's anxiety for the city's most cherished buildings, I have been endeavouring to get at the precise facts. Doubtless they are to be found in some bulky history, or in one of those many special communications which M. de Blowitz sent from Paris as special correspondent of "The Times," but an assiduous search through many a volume and a wearisome perusal of newspaper files have not revealed the exact information. I have, however, found a list of the public buildings of Paris which were more or less damaged in the bombardment. They were—S. Sulpice, St. Etienne-du-Mont, the Panthéon; the Ecole de Droit, Ecole de Médecine, and Ecole des Mines; the Sorbonne, the Observatory, and the Gobelins; the Cluny Museum and the Museums of Natural History and of Mineralogy; the hospitals of Val-de-Grâce, La Pitié, La Charité, Les Enfants Malades, La Salpêtrière, La Maternité, Les Jeunes Aveugles, Infant Jésus, and Lourcine; the Polytechnic and Normal Schools, and the Lyceums of Corneille, St. Leonard, and Descartes; and the hot-houses in the Jardin des Plantes. It was the later revolution, that fierce Commune, that did far more damage than all the bombardment. Here is a contemporary narrative: "The great and stately pillar in the Place Vendôme—a hollow column of stone encased by a skin of bronze—has gone down; the historical Tuileries is burnt; that fairy-like Sainte-Chapelle has vanished; the Hôtel de Ville and the Hôtel-Dieu remain only in fragments; the Louvre has been battered out of its new beauty; Notre Dame has had a bare escape; the Luxembourg is blown up; all those splendid architectural streets, which were the pride of the Imperial capital a few months ago, are shattered, defaced, and mutilated beyond recognition. Paris has lost, within a month, more than centuries have built, more than Imperialism, Royalty, or Republicanism can ever—did it last a thousand years—replace."

The foregoing was written when the incidents were still in progress, or had just been brought to a conclusion, and the record of a later observer qualifies them to a certain extent. Writing to "The Times" in 1871 a correspondent says that, compared with other losses, the Tuileries is hardly deplored, though it contained enough to make the reputation of a town. With the destruction of the Hôtel de Ville was included that great work of Ingres, "The Apotheosis of Napoleon," as well as a salle decorated by Delacroix. Duc's work at the Palais de Justice, the restored Salle des Pas Perdus, was ruined, and though a powder explosion had unroofed a portion of the Luxembourg and smashed the windows, the Musée and the statues in the gardens remained intact. Some injury was done to the Arc de Triomphe, particularly to the bas-reliefs of M. Etax, while on the Place de la Concorde one of the colossal seated statues—that of Lille—was practi-

cally destroyed, and much damage done to one of the fountains.

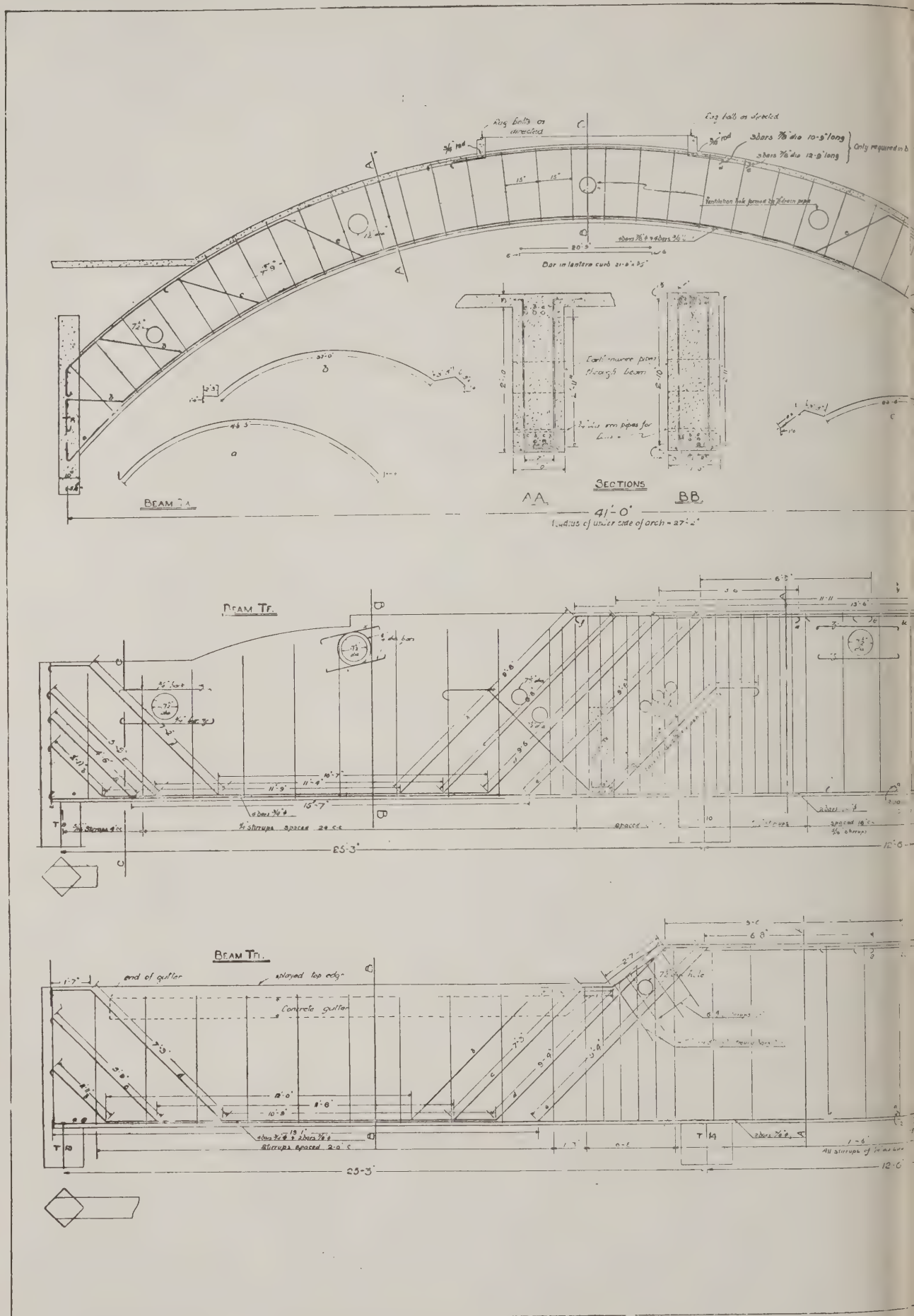
That the great buildings of Paris were spared as much as possible in the bombardment of 1870 was no doubt in some measure to the representation by M. Thiers. That a similar consideration extended in 1914 seems very doubtful, and by these lines get into print goodness knows what have been destroyed by German shrapnel. Can you imagine the R.I.B.A. entering a protest in the hope of dissuading an army that has already left such a trail of desolation in Belgium. Yet in one of the papers of the 'seventies I read the following: "I understand that Mr. Gilbert Scott has given notice of his intention to ask the Royal Institute of Architects to address a memorial to His Majesty the King of Prussia upon the question of the threatened bombardment of Paris by his forces. Not only there be no harm in such a proceeding, but we regard it as an act of duty on the part of the Institute that the intelligent authorities of Germany would recognise, and indeed feel bound to allow to have considerable weight." Whether Mr. Gilbert Scott ever did as rumour here suggested, and the Institute sent the memorial, I have not been able to trace. The whole thing is worth rescuing from limbo for the sake of the unconscious humour of it. Imagine a train of siege guns ready to open fire on Paris, at the last moment an order coming from the Emperor via the General Staff, to be very careful not to touch the great Dome of the Invalides, and to avoid hitting St. Eustache to smithereens, because a memorial on the subject had been respectfully presented by the R.I.B.A., coupled with the names of the Society of Architects, the A.A., the Society for the Preservation of Ancient Buildings, and the Guild of Architect Assistants!

At this season of the year we can look around and see what happens when people have a mistake about creeper and other greenery on their houses. Certainly there are some houses over which the exuberant growth of creeper throws a discreet veil, just as there are some street fronts which are improved by being hidden by an advertisement hoarding. The merits which creeper may possess in such cases become demerits when they obscure architectural details which should be allowed to show its face frankly. In my old house I have seen lately overwhelmed with creeper—walls, gutters, chimneys, all being overspread with the irresistible growth. Admittedly, most houses are improved by having greenery about them, but it is essential that a very strict control should be kept over the growth. The whitewashed roadside pillar smothered with roses has been a rather disagreeable example. What should and what should not be well illustrated by two old houses side by side which have attracted my notice within the last few years. They both date from the late Georgian period and retain their delicate little trellis porches, thin sashes, and some of their old flashing glass. The one is all these features unencumbered; the fronts are quite clear, but it is not bare, and we may note the pleasant texture of the brickwork. Rambles creep up around the doorway and serve as a pleasant foil to the architecture. In the other case we can see nothing of the architecture at all. The whole front of the house is grown over with creeper which hangs in strings even over the window openings, the effect being that of a coruscation of greenery. I have no doubt that many people might call it "picturesque"—a word of evil memory—but anyone who has any appreciation for the architecture smothered up by wild growth will agree with me that a mistake is made at the bottom of the whole thing.



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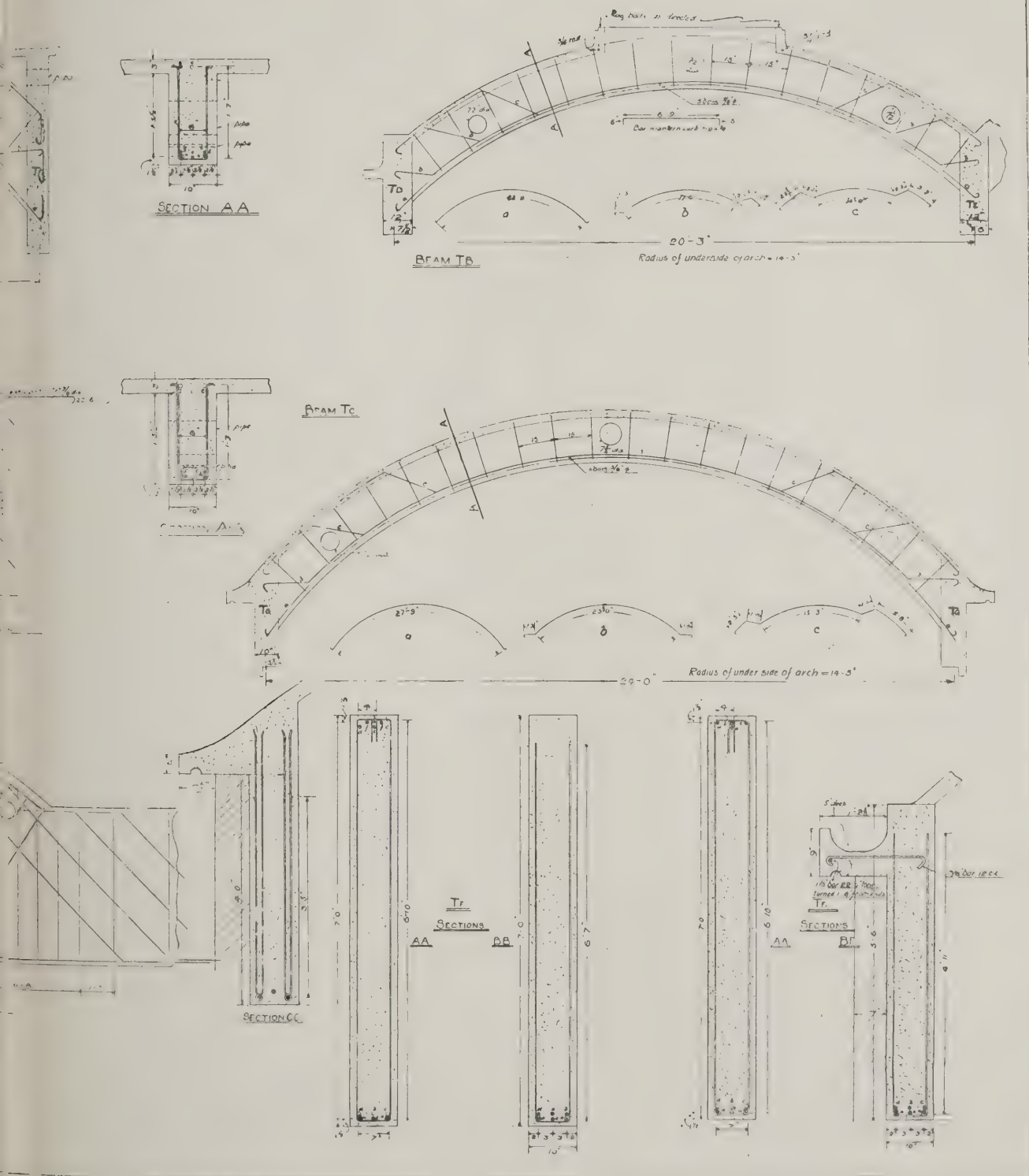




# WEST DERBY STREET SCHOOL LIVERPOOL.

## DIAGRAMS OF ROOF BEAMS.

SCALES  $\frac{1}{8}'' = 1 \text{ FOOT}$   
 $1'' = 1 \text{ FOOT}$



WEST DERBY STREET SCHOOL, LIVERPOOL: DETAILS OF REINFORCED CONCRETE CONSTRUCTION.



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## BUILDERS' PRICES DURING THE WAR.

At the moment at which it became certain that the cost of building materials would be seriously affected by the war, we have consistently maintained that prices must be established on a firm and stable basis. In this view we have been supported by architects, surveyors, builders, and others who are intimately associated with the building trade. Mr. Henry Riley, the well-known quantity surveyor, has received the following valuable communication, which more than confirms all that we have

in our editorial note and 'Some Practical Considerations' signed by C. H. B. Q., in the last issue of the Journal, should supply sufficient evidence that some serious effort must soon be made if the bulk of building works is not to be entirely paralysed during the continuance of the war.

The endorsement of tenders, as proposed by the architects and builders, is not calculated to inspire confidence in the minds of clients to proceed with their works unless they are given some clear and definite sort of guarantee. They will only be called upon to pay actual prices in the prices of materials directly consequent on the war.

To enable this to be done suggests, in the first place, the preparation of a schedule showing the prices of the principal building materials obtaining in London (and perhaps in most of the provincial towns) immediately prior to the outbreak of hostilities, and similar schedules at weekly or other regular intervals whilst the war continues.

Our correspondent suggests the formation of a central committee composed of architects, surveyors, and builders to act in conjunction with the Society of Trade, and if such a committee could be formed, and it would undertake the preparation and revision of the schedules, I am of opinion that what looks much like a coming deadlock in building operations might to a great extent be avoided. It might be possible for such a committee to act as a sort of tribunal to settle any questions or disputes on questions of prices arising out of the present unsettled state of affairs.

Such a committee need not be a large one, and I think there are many of our leading architects, surveyors, and builders who would only be glad to give their services either in the way suggested or in any other way with a view to establishing and maintaining confidence in the building world, and endeavouring as far as possible to keep things

on the urgent question is, Who will take the initiative? If anything is going to be done it must be done quickly."

The answer to Mr. Riley's query is obvious. The proper and proper body to undertake the work in question is the Architects' War Committee, acting in conjunction with members of the Institute of Builders, the London Master Builders' Association, and the National Federation. Up to the present the Architects' War Committee has done little or nothing to justify its existence, and some of its members have even attended a meeting. Here, then, is a fine opportunity for the committee to demonstrate its usefulness—to the community at large no less than to the architectural profession and the building trade. The suggested committee, as Mr. Riley has said, need not necessarily be large—indeed, the smaller it is the better—but, in order to carry weight with the Board of Trade, with whom negotiations would have to be conducted, it must be properly representative of all the various interests involved. It is essential that this committee should be formed, and with as little delay as possible.

## THE PLATES.

*Graduate College of Princeton University.*

AMONG American architects Messrs. Cram, Goodhue, and Ferguson have been particularly successful in their interpretation of English Gothic. The Graduate College of Princeton University is the latest example of this, and a very noteworthy one, for, though the source of its inspiration is obvious, it is no mere copy of one of our collegiate buildings at Oxford or Cambridge. Some particulars of its inception and development, together with a plan and a general view of the college, will be found on page 180.

*"Horncastle," East Grinstead.*

This house, by Mr. P. Morley Horder, F.R.I.B.A., is built of local stocks mixed with brighter red bricks. The dressings and window mullions are of local stone, and the roof is covered with old roofing tiles. The plan of the house is of the corridor type, with all the main rooms facing south, the billiard-room forming the western shorter wing and the kitchen and offices the longer eastern wing.

*Doric Order, Temple at Cori.*

The temple at Cori, the ancient Cora, near Velletri, in Italy, is thought to be of the time of Sulla (137-78 B.C.). It is of particular interest as the earliest example of Roman Doric. The column has a very small base, consisting of a single torus with a narrow fillet above it. The shaft is fluted for the upper two-thirds of its height, the lower portion being simply brought to a polygon. The capital has annulets, above which is a slightly convex curve ending in a fillet which interposes between the curve and the abacus. This example is unique, no other piece of Roman work known to us having at all its general character. It is probable that its peculiar forms are derived from the later architecture of Greece. The original of the fine drawing we reproduce is in the gallery of the Department of Architecture at the Massachusetts Institute of Technology.

*Pavillon Colbert, The Louvre, Paris.*

The Pavillon Colbert is situated at the north-east corner of the large inner square that extends between the range facing the Place du Palais Royal on one side and the similar range fronting the river on the other side. It balances the Pavillon Turgot, the two being on either side of the central Pavillon Richelieu. The building forms part of those large works of rebuilding which were carried out in the time of Napoleon III., 1852-1857, under the direction of Visconti and Lefuel.

*Two Houses at Ham, Surrey.*

Ham Common is faced by a series of old-world houses, nearly all of which date from the late years of the eighteenth century. For the most part they are formal, precise, and delightful. Of the two illustrated, Langham House relies for its effect on the emphasis which is given to the entrance porch and door, over the carefully studied reticence of the rest of the design. The white door, very suggestive of the clean, pure air of the country, strikes the right rural note, and must not be overlooked. Gordon House is a more interesting composition, but the detail is not so good. The high and rather ugly boundary wall, a later addition, detracts from the general appearance of the house from this side.

*Working Drawing, West Derby Street Schools, Liverpool.*

This drawing, showing the details of the semi-dome in the roof of the above schools, together with details of the general reinforced construction of the building, is self-explanatory. Some particulars of the building are given on page 185.

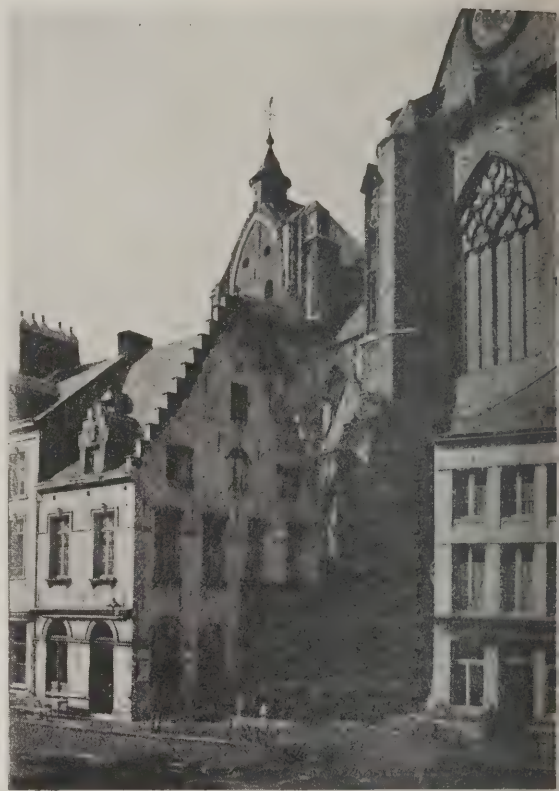


## THE DESTRUCTION OF LOUVAIN.

FOR one who has known and loved Louvain for five-and-twenty years it is heartrending to have to write its obituary notice! Murdered as deliberately and as foully as ever was individual, by brutes who have posed for a generation past as the most highly cultured of human beings, it is now a mere heap of ashes, utterly, perhaps irrecoverably, destroyed. A quiet, sleepy, old-world place, it has yet been well known to architects, who have always esteemed it highly amongst the quaint cities of the Low Countries. It stood for the spirit of peace under the shadow of its great Cathedral Church of St. Pierre; it exemplified the spirit of municipal government in its elaborately decorated and most beautiful Hôtel-de-Ville, ornate, yet excellently proportioned; and it covered, but could occasionally display, the spirit of arms as evinced by its great barracks. Architecture apart, the most entrancing sight in this old-world place was possibly the passage of a gorgeously uniformed troop of lancers along one of its sunlit streets; while in contrast to this the most beautiful sound, as all visitors will testify, was undoubtedly the frequently recurring tintillation of the "carillon" from the tall church belfry, repeating snatches of some well-known refrain (it used at one time to be that of "Les Cloches de Corneville") twice every quarter of an hour, with a full burst of melody at mid-day.

This is perhaps hardly the time for an elaborate description of buildings which, together with the other art treasures of Louvain, have disappeared, but the accompanying general views of the principal monuments will be of melancholy interest both to those who have personally studied them and to those others who have not.

The two photographs of the Church of St. Pierre were taken more than twenty years ago, and show the small houses beside it which were removed within the last five years, during which time the structure itself underwent careful restoration on conservative lines.



CHURCH OF ST. PIERRE: SOUTH ENTRANCE

The Hôtel-de-Ville is well known, with its numerous roof dormers and its curious turrets.

In one of the streets was a fourteenth-century absolutely unique, with cut brick tracery carried over the front, as also was the open tracery spire of Church of St. Gertrude, situated near the river, poorer part of the town.

G. A. T.



THE TOWN HALL.



A STREET VIEW.



the foregoing note by Middleton may be added following particulars of the chief buildings in Louvain which have been preserved. First among these is the Hôtel de Ville. This is undoubtedly one of the chief buildings in Belgium, although it underwent extensive restoration in the early part of the nineteenth century, the work was recently carried out in a notable manner. Eleven years were occupied in erecting the building, from 1448 to 1459, the design being by Mathieu de Layens, a mason of Louvain. The original scheme was considered so astonishingly good, to be impossible of imitation, and the municipal authorities, having some doubts on the matter, submitted the scheme for consideration of the architect of Philip the Good, who approved by him, and Layens eventually carried it to completion. The architect's note on the building is interesting. He says: "Even without structural decoration a building by mere dint of ornament, become an architectural object, though it is far more difficult to obtain such architecture by this means, and in true styles it has seldom been attempted. Still, such a building as the Hôtel de Ville at Louvain, which, if stripped of its ornaments, would be little better than a factory, by its mass and appropriateness of ornament alone has become a very pleasing specimen of the art. Certainly the most elaborately decorated piece of Gothic architecture in existence. Though perhaps a little overdone in some parts, the whole is so consistent, and the outline and general scheme of decoration so good,



CHURCH OF ST. GERTRUDE.

that little fault can be found with it." The interior of the building would appear to have been very largely altered during the eighteenth century, the majority of the rooms dating from that time. The council chamber was restored in the style of the fifteenth century. With its deep windows, heraldic ornament, and grey stone walls, it presented a very austere appearance.

The Church of St. Pierre was an exceedingly fine building, and its destruction is a great loss. Originally it had a central spire which is said to have been 500 feet high, but this was destroyed by a storm in 1606, the side towers being ruined in its fall.

The next most notable building in Louvain was the University, formerly the Cloth Hall. It was in 1679 that the University authorities took possession of the building, and in the following year they added a storey to accommodate the great library, which at the time of its destruction by the Germans is said to have contained more than 200,000 volumes. The woodwork of the library was of that flamboyant character which characterises the Rococo period in Belgium.

Another fine church in Louvain was that of St. Gertrude, noteworthy especially for its richly carved choir stalls, dating from 1540, the work of Mathieu de Waeyer; while other churches possessing many interesting features were St. John's, which had an extremely fine sixteenth-century tabernacle in white stone, and St. Michael's, commenced in 1650 by the Jesuits, and a very typical example of Belgium Renaissance architecture.



CHURCH OF ST. PIERRE, EAST END.





GRADUATE COLLEGE, PRINCETON UNIVERSITY, PRINCETON, N.J.: VIEW FROM SOUTH-WEST (DEAN'S LODGINGS IN FOREGROUND). CRAM, GOODHUE AND FERGUSON, ARCHITECTS.

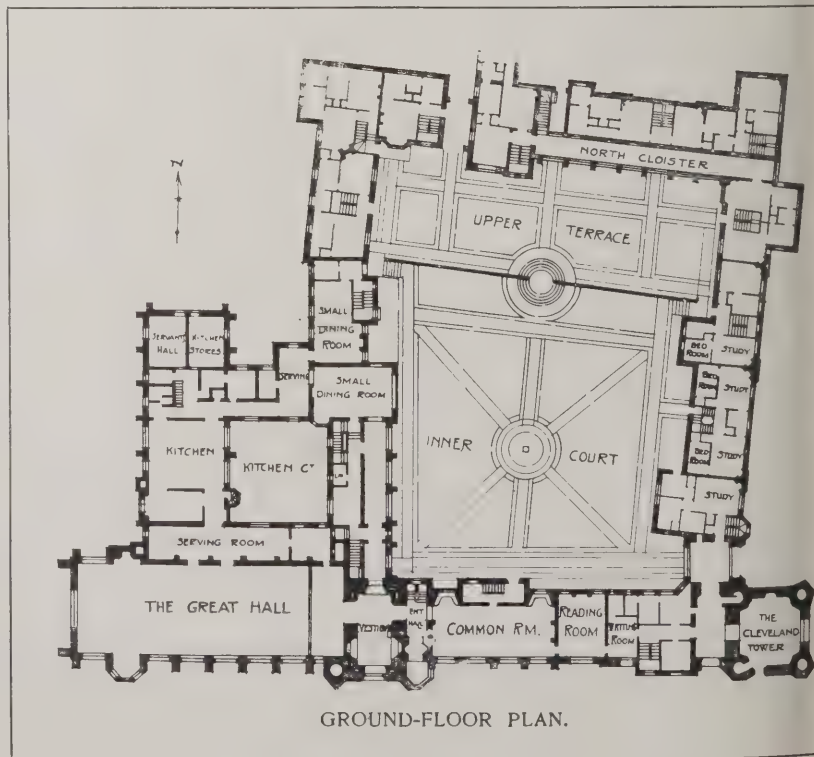
### THE GRADUATE COLLEGE OF PRINCETON UNIVERSITY.

Princeton, unlike Harvard or Yale, lies not in a large, busy, and bustling manufacturing city, but in a small township situate almost midway between New York and Philadelphia. The university occupies a site of nearly 600 acres, which is covered by scattered collegiate buildings of every kind. The new building which has recently been added to the university is a unique college, being the first complete expression of an idea often put forward but never before carried out. The college is intended for men who wish to devote themselves to research in all branches of learning, who will here reside for a few years after taking their degrees. It consists of a large court containing "sets" of apartments capable of housing 111 researchers. In the economic way which works so well in American universities, many of these "sets" house two students, with a common sitting-room and a common bathroom, but with separate bedrooms. One of the features of the court is a truly magnificent dining hall capable of seating over 400 guests. The roof is a particularly interesting example of honest construction, the trusses being wrought from huge oak timbers and embellished with carving. The walls are wainscotted in oak to the splayed sills of the windows, and at one end is a splendid screen, richly carved. This hall has been built by Mr. W. C. Proctor, of Cincinnati, and compares in beauty and in size with the finest college halls in Great Britain. The latter have obviously been taken as a model for the design. This great hall, however, is no mere copy of any existing one, but an individual piece of work based on the best English examples. But the most conspicuous feature of the whole building is the Cleveland Memorial Tower, erected in

memory of the late President Cleveland, who spent the last years of his life in the town. This tower somewhat resembles that of Magdalen College, Oxford, but is on a larger scale—in fact, it looks almost as large as the Victoria Tower of Westminster Palace.

The building has been designed by the well-known firm of Cram, Goodhue, and Ferguson, of Boston. The stone they have used is, for the most part, local, the whole eastern part of Pennsylvania and New

Jersey being underlaid by sound blue stone of great variety and beauty of face. It has been dressed to a perfectly finished surface, and as used in this building is a remarkably good example of modern masonry walling. For the moulded and carved work a standard Indiana limestone has been used, not unlike our own Bath stone in color, though it is said to be more durable. The whole structure is a perfectly honest expression of building and a most interesting contribution to collegiate architecture.



GROUND-FLOOR PLAN.



## ARCHITECTS AND THE WAR: CURRENT CONTRACTS IN HAND.

der to restore public confidence in building trades, the following architects, from patriotic motives, been good enough to supply us with information concerning their current and coming contracts. It is proposed to these columns open week by week, architects and others in all parts of country are invited to send similar works for publication. In the lists follow, the contract prices are given available.

rs. *Edwin T. Hall, F.R.I.B.A., Stanley Hall, M.A., A.R.I.B.A.* (n, W.C.).

above gentlemen are acting as ry architects for the hospital at Net- ven by the Principality of Wales, reception of men wounded in the war. The following is a list of n hand or about to be carried out. re by Messrs. Edwin T. and E. Hall together, and others by each ct separately.

ilding of Messrs. Liberty's pre- Regent Street, having a frontage ft. to two streets. Sanatorium of eds at Pontywall, South Wales s. Arnold and Sons, Doncaster, con- s). Two sanatoria in Surrey for the olitan Asylums Board, one for 232 nd one for 164 beds. Sanatorium eds in Hampshire, for the Metro- Asylums Board Additions to Allen Girls' School, Dulwich (F. I. F. Higgs, contractors). Out- s' Department Anti-Vivisection al, Battersea (Foster and Dick- ontractors). Offices in Birchin E.C. (John Greenwood, Ltd., con- s). Church of St. Cuthbert, s, Portsmouth (Samuel Salter, con- Southsea). Alterations and addi- t Fulham Road Infirmary for the Westminster Union (Mr. McCarty, tor). Decorations and repairs at ndon Infirmary, for the City of inster Union (Mr. McCarty, con- s). Drainage work at the same place Economic House Drainage Com- ontractors). Sanatoria at Lenham, Kent County Council (West Bros., ctors, Rochester). Alterations and ns to house at Ashted. Altera- additions, and painting at Dulwich e (Call and Mitchell and Son, con- s). Additions to Dulwich Picture r (John Parker and Sons, con- s).

*Alexander N. Paterson, M.A., A.* (Glasgow), writes:

ave pleasure in supplying herewith : of works at present in hand. Of o in preparation the bank is, I , likely to go forward, but the pri- ouse is meanwhile suspended. In n to my own work, I am engaged as r in connection with two competi- o be decided within the next six one for buildings for the Corpora- Glasgow in the centre of the city, e for a board school at Dundee, both ch, I understand, are likely to be ded with. I have also intimation of ed competition for municipal build- be erected in a small town in the ourhood. These, also, I under- are to go on. The aggregate value work referred to as in progress ts to about £35,000 and of that in ation to £11,000, while the cost of ildings in the competitions men-

tioned will be about £50,000. As regards the names of the contractors, I have given those of the builders (masons and brick-layers) only, as the list would be too exten- sive for publication if all those for the separate trades under the Scottish system were included."

Mansion House, Cumberland (George Reid and Son, builders, Catrine, Ayrshire). Extension and Alterations to Mansion House, Camis Eskan, Dumbartonshire (Anthony Trail and Son, builders, Helensburgh). House, Helenburgh, Dumbartonshire (Alex. Miller, builder, Helensburgh). Alteration and Decoration, etc., Great Western Terrace, Glasgow (Thaw and Campbell, builders, Glasgow). Works Extension, Barr and Stroud, Ltd., Anniesland, Glasgow (Thaw and Campbell, builders, Glasgow). Glasgow Dairy Company, Ltd., Extensions, etc., Central works (William Shaw and Sons, Ltd., builders, Glasgow), and various smaller works. National Bank of Scotland, Ltd., Gourrock (going to contract). House, Helensburgh (plans in preparation).

*Mr. R. Frank Atkinson, F.R.I.B.A.* (London, W.), writes:

"I am unable to give you detailed particulars of the various works which I now have in hand, but the following is a selection with approximate total cost":

Whiteley Park, Burnhill, Surrey: Numerous cottages and Nurses' Homes, a bridge, three lodges and entrance gates. Alterations to Messrs. John Lewis and Co.'s premises, Oxford-street, W. New premises in Bolsover Street for Messrs. John Lewis and Co. (contract not yet settled). Interior decoration on the ss. Transylvania for the Cunard Steamship Company. Gleneagles Hotel, near Perth, etc., etc. (Approximate total cost of all the above, £200,000).

*Messrs. Willink and Thicknesse, F.F.R.I.B.A.* (Liverpool).

Cunard Building, Liverpool. St. Anne's Church, Liverpool. Seamen's Orphanage, Liverpool. School of Recovery, Liverpool. Gymnasium, Liverpool Institute. ss. Aurania; ss. Oswald; King William's College, I.O.M.

*Mr. Cecil Brewer* (of Smith and Brewer F.F.R.I.B.A., London), writes:

"We may say that work is on the whole proceeding satisfactorily. All our contracts are running their natural course, and so far we have not been stopped in preparing drawings or schemes. One small contract has been signed since war was declared, and we have received instructions since then to prepare a scheme for a large semi-public building, and, further, have been asked to report upon a site for a new country house. As far as we are concerned, we see no cessation of architectural activities, although we are somewhat hampered by the loss of assistants who have been called away on service."

*Messrs. William and Edward A. Hunt, F.F.R.I.B.A.* (London, W.C.).

(1) Chambers and offices, St. James Street, Westminster. (2) House at Wimbledon. (3) Business premises, High Street, Wandsworth. Drawings for 1 and 3 are in course of completion. For 2 quantities are ready for estimates. (The total estimated cost of the above works is

£36,000.) Drawings are in hand for the following: (4) House at Belmont, Surrey. (5) Group of four small houses at St. Margaret's, Twickenham. (6) House and garage at Hampton. (The total estimated cost of these latter is £9,500.)

*Messrs. Horace Field and Simmons* (London, W.), write:

"The only contracts for building work which we have not had cancelled are alterations and additions to Frampost, East Grinstead, and new bank premises for Messrs. Lloyds at Edenbridge."

*Mr. C. W. Bevis, F.R.I.B.A.* (South-sea).

Girls' Permanent Hostel, Milton, for the Portsmouth Corporation (Henry Jones and Son, contractors) (£18,000). Reinforced concrete coal bunkers, for Messrs. Fraser and White, Ltd. (Trussed Concrete Steel Co., contractors). Transporters for Fraser and White, Ltd. (Sir William Arrol and Co., Ltd., contractors). \*New offices, for Messrs. Fraser and White, Ltd. (J. Croad, contractor). \*Extension and alterations to business premises for Handleys, Ltd. (S. Salter, contractor). Electric lifts for Handleys, Ltd. (Waygood-Otis, Ltd., contractors). Branch office for London Joint Stock Bank, Ltd. (J. Croad, contractor). Plans are being prepared for new Congregational Church, Edinburgh Road, Portsmouth. \*Decorations, United Service Lodge, Portsmouth (F. De Jong and Co., Ltd., contractors). Additions to business premises, Mile End, Portsmouth, for Messrs. W. Pink and Sons, Ltd. (F. J. Privett, contractor). Additions to business premises, Fratton Road, for Messrs. W. Pink and Sons, Ltd. (F. J. Privett, contractor). Additions to business premises, Palmerston Road, for Messrs. W. Pink and Sons, Ltd. (F. J. Privett, contractor).

Note: The asterisks denote jobs on the point of completion.

*Mr. G. de C. Fraser* (Liverpool) writes:

"Following is a list of the chief contracts which I have on hand: Business premises (Lewis's), £40,000; business premises (Coopers), £45,000; business premises (Mr. Russell), £24,000; business premises (Boots), £12,000; Premier buildings, nearing completion, £23,000. The war, so far, has not caused any of my clients to curtail their building activities."

A London F.R.I.B.A., who desires to remain anonymous, writes to say that none of his contracts are yet affected, but he expects to find some difficulty in arranging new ones in consequence of the unsystematic method of pricing tenders which at present prevails. He thinks, as we do, that an endeavour should be made at once to establish standard prices for materials, in order that tenders may be drawn up on a common basis, and be free from the variations which are causing so much inconvenience to architects. Some builders, he says, are using the endorsement which has been issued by the Institute of Builders (reproduced in our Editorial Notes this week), while others merely add a certain percentage to the total cost as a security against war risks. So long as this confusion is allowed to exist, he fears that the building trade cannot hope to secure public confidence.



## ENQUIRIES ANSWERED.

*Distances Between Columns of Parthenon: Drawing Volute.*

SUBSCRIBER writes: "(1) What is the distance (in modules) between the centre of the corner column and the centre of the next in the Parthenon at Athens? (2) What is the correct method for drawing, mechanically, the volute of the column of the North portico of the Erechtheum?"

—(1) At the north corner, east elevation, the distance is 12.019 ft.; south corner, east elevation, 12.20 ft.; west corner, north elevation, 12.149 ft.; east corner, north elevation, 12.24 ft.; east corner, south elevation, 12.179 ft.; west corner, south elevation, 12.142 ft.; south corner, west elevation, 12.195 ft.; and north corner, west elevation, 12.118 ft. These have been taken from Mr. Penrose's measurements, and it will be noticed that the dimensions are in feet and decimals. A module is 6.019 ft., on the north-east angle column. (2) There is no correct mechanical method of drawing the Ionic volute. All suggested methods, however nearly they approximate to the truth, are in reality guesses at the method adopted by the Greeks, which nobody can declare with certainty to have discovered.

*The Temple Church, London.*

ENGINEER writes: "I understand that the above church is considered to be one of the most perfect specimens of early Gothic architecture in England. It is the largest and most complete of the four remaining round churches in England. I should very much like to know where the other three are situated."

—There are four round churches in England, these being the Temple Church, London, which was connected with the Order of the Knights Templars; the Church of St. Sepulchre, Cambridge; the Church of St. Sepulchre, Northampton; and the Church of Little Maplestead, Essex. These three last were connected with the Order of Knights Hospitallers. Particulars may be found in the second volume of a work by Professor T. J. Bonney, entitled "The Cathedrals, Abbeys, and Churches of England and Wales," published by Cassell and Co.

*Strength of Fletton Brick Piers.*

B. P. writes: "A pier 2 ft. 3 in. by 2 ft. 3 in., standing between two shop fronts 12 ft. high from floor level to underside of girders, carries a dead load of seventy-two tons. An 18 in. wall, dividing the shops (and superstructures), abuts centrally against the back of the pier. The pier in the basement below is 3 ft. by 2 ft. 3 in. by 10 ft. high, with the division wall at back 2½ bricks thick, and one 18 in. thick dividing vaults under pavement, abutting against the front of the pier. All the brickwork is built with Fletton bricks laid in 1 of Portland cement to 4 of sand. There are three storeys above the shop. Is the support sufficient?"

—Fletton bricks in cement may be considered equal to good London stocks in cement, but 4 of sand to 1 of cement is rather a high proportion, 3 to 1 being more usual. The safe working load on a cube of this brickwork might be taken as six to nine tons, the latter as maximum for dead loads only. The crushing strength at the point of first fracture would be somewhere about sixty tons, provided the brickwork had been built under close supervision. When a pier is bonded to a party wall it is not safe to consider that it will carry more

than if built independently, as the bonding is often not very good, and the pier, being generally under a greater load than the wall, tends to settle more, and therefore to strain the bonding. A pier will carry less than a cube of brickwork, but no reduction is usually made if the height does not exceed six times the diameter. The reduced load on a high pier should be  $w \left( \frac{24-r}{18} \right)$  where  $w$  is the load as given above and  $r$  ratio of height to least diameter. In this case the pier is  $\frac{12}{2.25} =$

5⅓ diameters high, so that no reduction need be made. The pier being 2 ft. 3 in. square, the safe load would be  $2.25^2 \times 9 = 45.6$  tons. If a load of seventy-two tons is put upon the pier it is probably within one-fourth of the breaking weight, and is greater than it should be.

*Condensation on Walls.*

SURVEYOR writes: "I have an office on the first floor communicating with one on the ground floor by means of an open spiral staircase, the walls of both offices being finished with a varnished paper. When the gas or the gas fire is lighted in the lower office condensation takes place to such an extent on the walls of the upper office as to render it impossible to hang coats on the hooks fixed to the wall for this purpose. What process takes place when the condensation occurs? The trouble is worse on the colder external walls than on the internal walls. Can you suggest a remedy?"

—The hydrogen in gas when burnt produces a considerable quantity of water vapour, which will condense upon any surface colder than the temperature of the room, such as windows and outside walls. With absorptive material, any small amount of moisture is absorbed, but with a waterproof surface, such as varnish, this does not happen. The remedy is to put in a flue to remove the products of combustion and to use distemper or paper on the walls instead of varnish.

*Lightning Conductor Passing Over Window Frame.*

X. writes: "Is it in any way undesirable to fix a copper tape lightning conductor to the wood frame of a window? A chimney-stack, on the face of which runs a lightning conductor, has been used for a telephone attachment, which is fixed up by wire straps which encircle the chimney and thus are in immediate contact with the copper conductor. Is there any possibility of harm in this?"

—There is no objection to the fixing on the wood frame *per se*, provided this does not bring the conductor dangerously near other metals; for instance, there might be a gas-pipe inside the room by the side of the window and, if so, a dangerous alternative path to earth would be provided by the metal pipe. A safe distance through in a straight line would be (for wood, brick, or stone) about 5 ft., provided the conductor had a good earth connection, a greater distance being necessary in proportion to the resistance of the conductor "earth," if that is not quite perfect. The proximity of the conductor to the telephone attachment suggests the possibility of very dangerous combinations. If the leading-in wire passes near a gas-pipe, either on the surface or concealed in plaster, a similarly dangerous alternative path to earth would be open, as the "lightning arrester" on the telephone case is probably wired with a view to the protection of the instrument and not the building.

## PROJECTED NEW WORKS.

*Home, Torpoint.*

St. Germans (Devonshire) Guardians have applied for sanction to borrow to build a scattered home at Torpoint.

*Cottages, Athy.*

The Athy No. 1 District Council, Kildare, Ireland, have been sanctioned to borrow £35,000 by the Land Commission for the purpose of building cottages.

*Houses, Wincanton.*

The Wincanton District Council are seeking to borrow £1,675 for the purchase of land and erection of eight houses at Milborne Port.

*Housing Scheme, Nottingham.*

The Nottingham Housing Corporation is pressing on with the Caster Gate housing scheme in order to provide employment.

*Infirmiry, Bromley, Kent.*

Acting on a suggestion from the Government Board, the Bromley Guardians have passed amended plans for a proposed new infirmary.

*Houses, Finchley.*

Owing to increased unemployment in Finchley, caused by the war, the Council have decided to proceed with the erection of 100 workmen's dwellings on the Woodhouse Estate, Finchley, at a cost of £26,450.

*Housing Scheme, Launceston.*

A Local Government Board Enquiry has been held at Launceston in connection with the application of the Town Council for sanction to borrow £5,000 for the purchase of sites and the erection of four houses for the working class in the borough. There was no opposition.

*New Buildings, Aberdeen.*

Plans have been submitted to the Aberdeen Town Council involving an estimated expenditure of £5,500. The plans include those of new buildings at Sandilands, a dwelling-house for two tenants, alterations to Torry United Free Church, and extensions and additions to existing premises.

*Offices and Bridge, Honley.*

The Honley (Yorks) Urban Council have received permission to borrow £2,450 for the provision of Council offices and a gas office in the town gate. Plans have been passed for the widening of Honley Bridge and alterations to the premises of the Honley Operative Society.

*200 Houses, Dunfermline.*

The Admiralty are requesting sanction for the erection of 200 houses at the Explosive Works, Dunfermline. The blocks are proposed to be used for the erection of the dwellings, which will be in the form of a terrace. It is understood that the Government authorities are prepared to defray the cost of a machine for the blocks.

*Bank Buildings, Gourock.*

Plans for the erection of new bank buildings for the National Bank of Scotland at the corner of Bath Street and Pock Street, Gourock, have been sanctioned by the local Dean of Guild Court. The four houses for the working class will be built of sandstone, and will contain three shops, and five dwelling-houses.



# CONCRETE AND STEEL SECTION.

(MONTHLY.)

## TRAMWAY CARHOUSE IN REINFORCED CONCRETE.

Reinforced concrete was used throughout the construction of the building in the accompanying illustrations—the carhouse for the Oakwood Street Car Company at Dayton, Ohio. This one-storey building with a trapezoidal having extreme dimensions of 200 ft. by 164 ft. The structure is divided by concrete walls into nine transverse bays, 34 ft. to 53 ft. wide and 164 ft. long. These bays are closed by an exterior wall at one end, and at the other end they are divided into a longitudinal aisle about 416 ft. and 24 ft. wide, adjacent to the side of the building, and containing a stem of two oblique ladder tracks of eight bays. The ninth bay, which has no track, is beyond the end of the ladder, and is two storeys high, the upper storey being devoted to an assembly and the lower storey to offices. The bays adjacent to the two-storey bay are devoted to repair work. The next two bays are devoted to car storage, and the last bay is used for both storage and repair.

The roof of the two-storey bay is supported on deep transverse reinforced-concrete girders, with kneebraces at both ends. To provide pitch for drainage in the roof slabs, the girders are placed lower at the outer wall than at the partition wall, and at the outer wall the end of the top flange is inclined nearly parallel with the kneebrace to give a man-of-roof effect.

The roofs of the storage bays are supported on ordinary transverse reinforced-



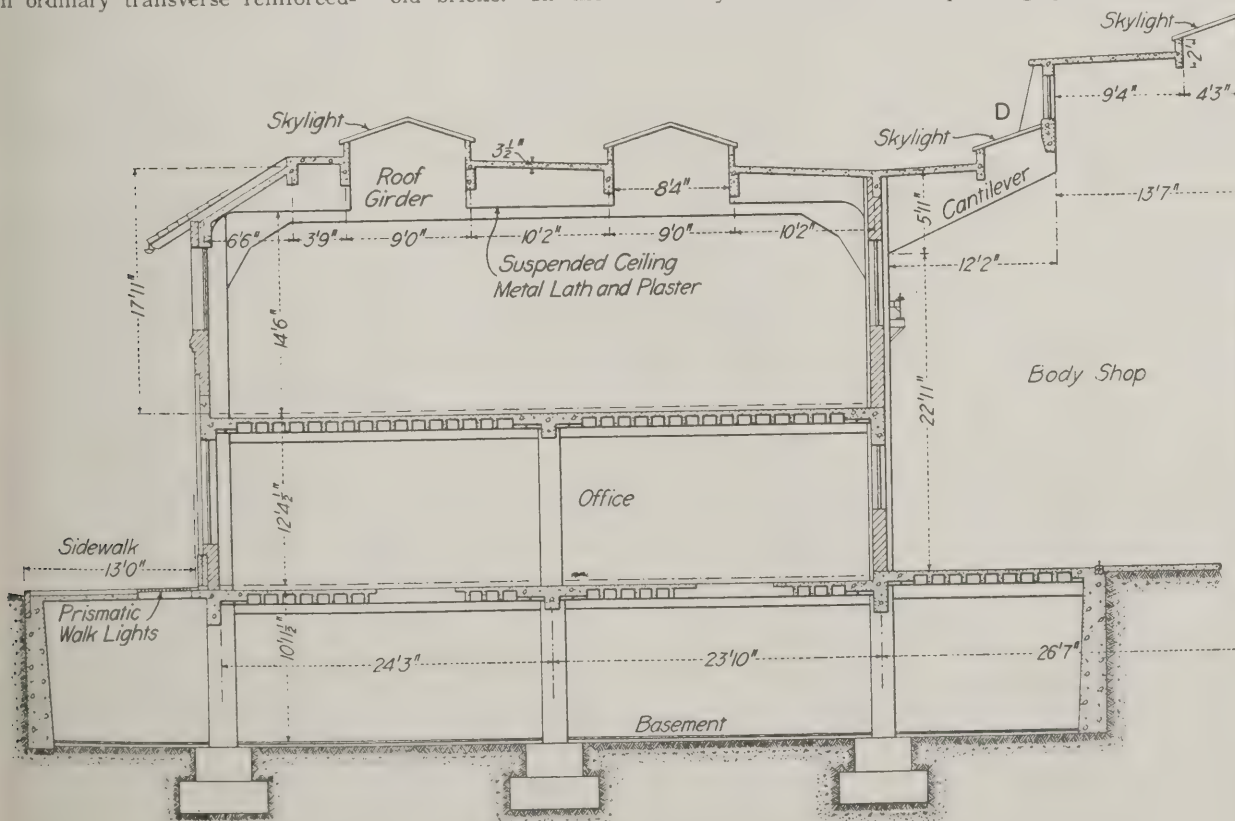
View of Interior, showing Reinforced Concrete Cantilever Roof.

concrete beams between the monitors, and have  $3\frac{1}{2}$ -in. roof slabs with a cinder concrete fill graded to the downspouts and covered with five-ply tar and gravel coating.

The panels between the outer columns are closed with curtain walls, which are faced with grey brick and trimmed with limestone and terra-cotta. The partitions are made of 4-in. and 6-in. fireproof hollow tiles between the interior columns. In the storage bays the floors are paved with old bricks. In the other bays the first

floor has a 4-in. concrete foundation covered with 4 in. of cinder concrete and a wooden wearing surface laid on one thickness of waterproofed insulating paper. The second floor consists of  $\frac{7}{8}$ -in. white maple laid on a 2-in. concrete slab cast monolithic with 3-in. by 10-in. concrete beams 50 in. apart on centres.

The entrances from the different bays to the ladder aisle are closed with corrugated iron rolling doors, 37 ft. wide and 16 ft. high. On account of their great weight their operating sprockets are supplemented



Transverse Section through Assembly Room and Office, showing Cantilevered Roof Truss.

REINFORCED CONCRETE CARHOUSE, DAYTON, OHIO.

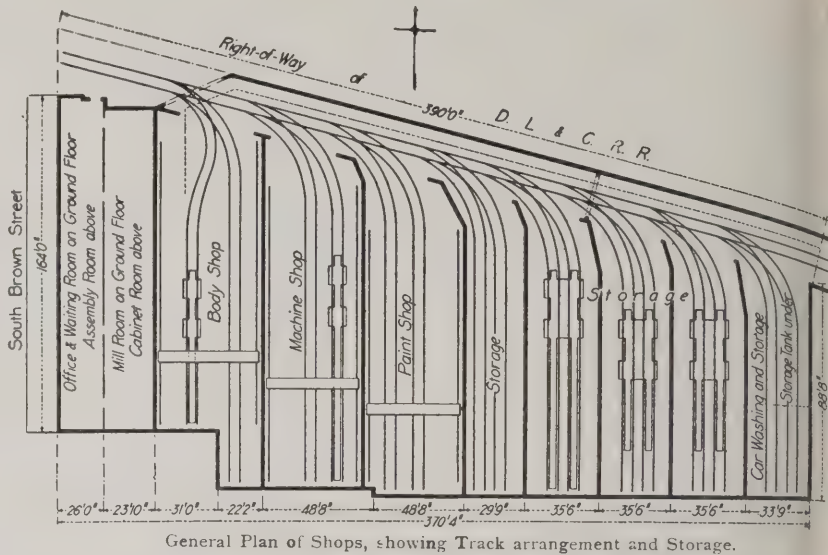


by heavy coil springs. Similar doors close the ends of the ladder aisle. All of the windows and skylights have pressed-metal sashes manufactured by the Trussed Concrete Steel Company.

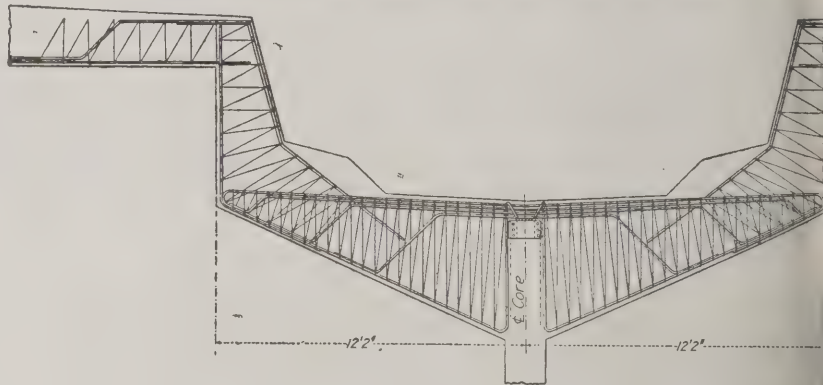
In order to secure a large amount of natural light, the shop bays are provided with full-length monitors 8½ ft. wide, with skylight roof and clerestory windows supported by cantilever girders on both sides of the bays. Part of the space between the cantilever girders is also devoted to roof skylights, thus giving a very large glazed area.

Adjacent to the first storage bay the shop roof is supported on single cantilevers, but all the remaining shop roof is supported on double cantilevers, as shown in the cross-section through the two-storey part of the building and by the detail of reinforcement arrangement. Adjacent to the two-storey part of the building and to the first storage bay, the shop roof is carried on single cantilever girders made continuous with the adjacent roof girders.

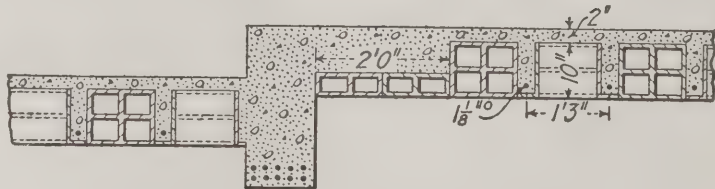
The remainder of the roof for the three shop bays is carried by two lines of double cantilever girders supported by the columns in the partitions both sides of the machine shop. These cantilevers support a concrete roof slab on concrete purlins and a skylight 4½ ft. wide. The top flanges of the cantilevers have horizontal reinforcement bars continuous across the tops of the supporting columns and with their ends bent to an angle of 45 degrees. The bottom flange reinforcement bars are bent at each column and continued vertically to the top of the latter, while the outer ends have a long overlap with the bent rods in the monitor walls.



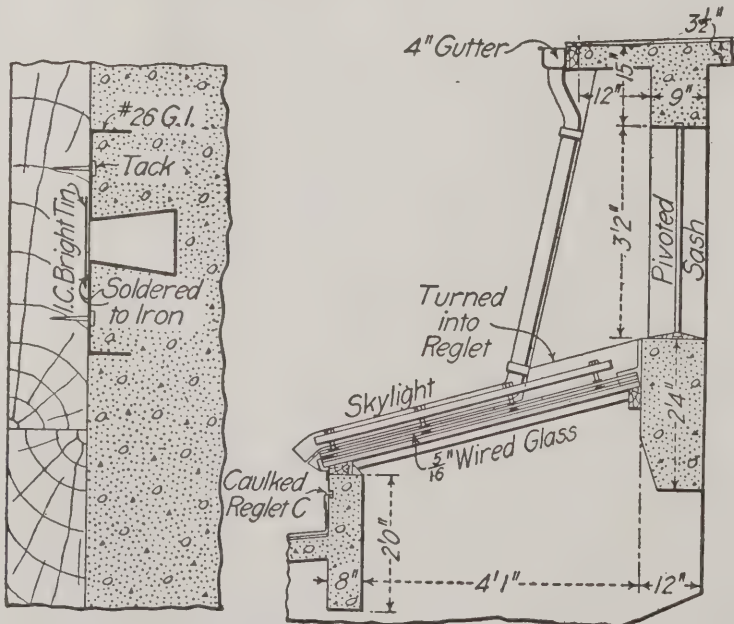
General Plan of Shops, showing Track arrangement and Storage.



Double Cantilever in Two-Storey Section supporting Shop Roof.



Typical Construction of Second Floor



Reglet C

Detail at D

Concrete Floor and Clerestory Construction.

REINFORCED CONCRETE CARHOUSE, DAYTON, OHIO.

Most of the columns have 20-in. I cross-sections, and those in the out are exposed, except in the two-storey where they are enclosed by pilaster brick walls. The columns carry double cantilever roof girders structural-steel reinforcement with plate-and-angle cantilever projecting beyond the enclosing to carry I-beam runways for the cranes in the shops.

Between the monitors and the stories of the shop bays, the so slabs are 3½ in. thick and project beyond the outer faces of the cl walls. They are pitched slightly eaves, where there is a 4-in. gal iron gutter with 3-in. conductors down on the buttresses over the girders. The skylights in the lo of the roof span a clear width of 4 and are supported at the upper wooden strips bolted to the cl walls, and at the lower ends on kerbs formed by the extension purlins above the surface of the roof slab. The joint between the the kerb has a metal flashing cover sheet metal aprons caulked into sh reglets built into the concrete.

#### REINFORCED CONCRETE F

The detached forts which li Franco-German and the Belgo-frontiers (including those which w the German advance at Liège) mainly of reinforced concrete const Only such earth is placed above t crete as will grow grass, and ther concealment, it having been dete that an earth bank adds far more effectiveness of a shell explosion smooth concrete surface.



DERBY STREET COUNCIL  
SCHOOL, LIVERPOOL.

school, owing to the limited area site, was designed as a three-storey building. It accommodates 385 infants, 150 boys on the ground, and 350 boys on the ground, and second floors respectively. Each consists of seven classrooms with a centre corridor, and cloak and store for each department. The scholars' in all cases, are placed in the corner, in full view of the teachers, in order to facilitate supervision and to ensure less.

pair of classrooms on each floor is by sliding screens only, and on the floor the side classes also are in the same way, in order that they together with the centre corridor, be up as one large room, having an about 63 ft. by 40 ft.

teachers' rooms are accommodated on mezzanines off the two main staircases. A third staircase, forming panic is provided. The basement accommodates a manual room and a dressing or bath room. The third floor is of a large examination hall, 75 ft. x 100 ft., free of all obstruction except for central supports.

The school has lent itself particularly to reinforced-concrete construction, the details of this work having been so



General View from Street.



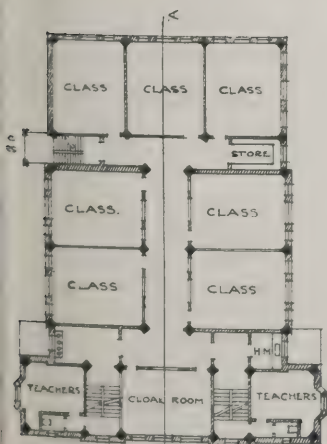
Domed Ceiling at Third Floor.

arranged that the whole of the internal walling above the ground floor ceiling, and the outside walling above the first floor ceiling, rests on the reinforced-concrete framework.

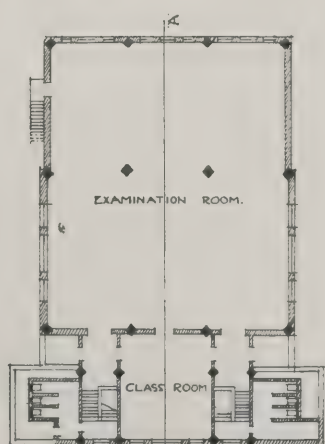
A feature of the stanchions, which are square on plan, is that they are placed diagonally with the walls, so that there are no projections and no square internal corners in the angles of the rooms. The domed ceiling and roof of the upper floor—floated on the upper side with waterproof cement—is a particularly satisfactory piece of work.

The exterior of the building was designed so as to express the method of construction adopted. The facings are hand-made Seacombe bricks in broken colours, with Portland stone sparingly used in the dressings.

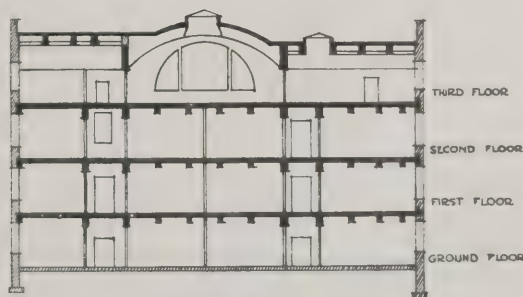
The windows of the classrooms are another special feature of the work, having been designed so that over three-fourths of their entire area can be opened at any time. The centre half of the height of each window opens vertically, and moves through an arc of 120 degrees if necessary, so as to divert the incoming and outgoing air as required from time to time.



FIRST AND SECOND FLOORS



PLAN OF THIRD FLOOR



SECTION A.A.

Scale 1/4" = 1' 0"



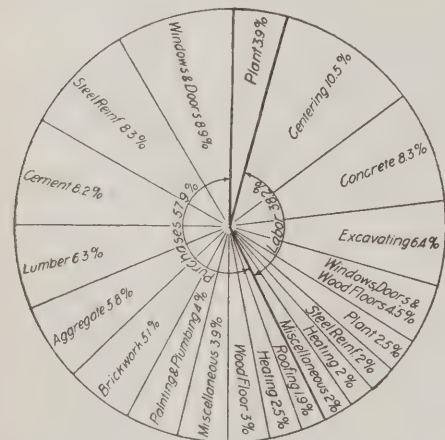
These sheets are all operated by the use of Messrs. W. and R. Leggott's ball bearing "Tranrin" centres and quadrant gear.

The architect for the work, on behalf of the Liverpool Education Committee, was Mr. Richard Holt. The details of the reinforced-concrete construction were arranged by him in consultation with the British Reinforced Concrete Engineering Co., who supplied the whole of the steel-bar reinforcement, special hoops, stirrups, and Clinton mesh required. The actual fixing of the reinforcement, centering, and concrete work was performed by the general contractors, Messrs. J. Henshaw and Sons, of Liverpool. The amount of the contract was about £13,000.

### COST CHART FOR REINFORCED CONCRETE FACTORY BUILDING.

The accompanying diagram shows an analysis of the distribution of the various elements of cost in a modern four-storey reinforced concrete machine shop. It is said to represent a fairly typical case, both as regards distribution and the character of the building itself.

Although the total labour cost was much less than the cost of materials, it will be noted that the largest single item shown on the chart was for labour in centering or placing forms—amounting to 10.5 per cent. of the cost of the building. In fact, the labour cost on the concrete portion of the structure considerably exceeded the cost of cement and aggregate from which



the concrete was formed. If, however, the cost of steel reinforcing bars be added to the concrete materials, the labour cost for the reinforced concrete falls a little below the material cost. In practically every other instance the cost of materials was far greater than that of the labour expended upon them. For instance, windows, doors, and wood floor materials accounted for 11.9 per cent. of the total cost, while the labour on these items was only 4.5 per cent.

The building occupied an area of 150 ft. by 50 ft. and was constructed with brick curtain walls. The general interior construction was of the beam and girder type, the height between finished floors being 12 ft. 4 in. The two lower floors were designed for live loads of 250 lb. per sq. ft. and the upper floors for 150-lb. loads. Floorbeams are carried on a single row of columns 10 ft. on centres, running the length of the building midway between side walls.

### BUILDERS' PRICES AND THE NEW HOUSING ACT.

A deputation from the National Housing and Town-planning Council had an interview last week with representatives of the National Federation of Building Trades Employers of Great Britain and Ireland and the Institute of Builders for the purpose of discussing the administration of the new Housing Act. The representatives of the Council were assured that the National Federation and the Institute would recommend builders throughout the country to co-operate with local authorities in the administration of the Act, with a view to keeping down the cost of cottage building during the war. The question of the rise in the cost of building materials was discussed, and it was decided that the President of the Board of Trade should be asked to receive a joint deputation asking for definite action to be taken by the Government to regulate the prices of building materials, and especially of those required for the building of cottages under the new Housing Act.

We are glad to note that builders are taking action with respect to the regulation of the prices of building materials. The urgency of this matter has been repeatedly emphasised in these pages, and further articles on the subject are published in this issue. It is to be hoped that the proposed deputation to the President of the Board of Trade may include an architect, in order that the architectural point of view may not be overlooked.

### TRADE AND CRAFT.

#### Change of Address.

Simplex Conduits, Ltd., have removed their Liverpool branch from 1, Dawson Street, to more extensive premises at 96, Whitechapel, Liverpool, where greatly increased stocks are now held. The new premises contain, in addition to large and convenient counter trade accommodation, a well-appointed private showroom, to which all contractors and architects are invited to bring their clients.

#### More Splendid Patriotism.

The directors of Claridge's Patent Asphalte Co., Ltd., announce that they are paying to the wives of all men in their employ, who are serving the country in any branch of H.M. Service, the difference between their pay as combatants and their average weekly wages, in addition to keeping their positions open for the men on their return from service.

#### The Call to Arms.

Messrs. Robert Ingham Clark and Co., Ltd., in company with other large employers of labour, have decided to place on half-pay all employees and workmen joining the colours and to reinstate them at the end of the war. Messrs. Robert Ingham Clark and Co., Ltd. feel convinced that their large clientèle, extending throughout the home industries, will support the company's efforts to maintain its entire staff during the war, so that its present object of continuing, without any reduction either in personnel or hours, may be achieved.

#### Rubber Flooring for Hospitals.

On Monday, August 31, Mr. William Greenhill, C.A., on behalf of the Rubber Growers' Association, formally handed over to the managers of the Edinburgh

Royal Infirmary the indiarubber presented by the association. The flooring, which covers the whole of the right and left wing corridors and the halls of the infirmary, measures 10,000 square yards, and has been manufactured by the North British Rubber Co., Castle Mills, Edinburgh. The flooring is in black and white, from designs prepared by Mr. Hippolyte J. Blanc, R.S.A., and Mr. Franc Blanc, architects, of Edinburgh. In addition to the gift to the Edinburgh Royal Infirmary, the Rubber Growers' Association have made presentations to Guy's Hospital and the London Children's Hospital. The flooring has in all cases been manufactured from plantations rubber contributed by various companies.

### BUILDERS AND THE MORATORIUM.

At a representative meeting, held under the auspices of the National Federation of Building Trades Employers, a few days ago, various matters arising out of the present situation came up for consideration, in particular the effect of any extension of the moratorium beyond September 4. This matter was discussed with a view to determining what answers should be sent to an enquiry received from the Government in connection therewith. The meeting was unanimously in favour of allowing the present moratorium to continue until September 4, because in the building trade, where practically half the turnover has to be paid out weekly for wages, its extension was likely to lead to unemployment on a large scale. It was further urged that if the Government did decide to extend the moratorium beyond September 4, it would be desirable, if possible, to allow the building trade, and if that course was not practicable it should be made a condition that in the event of a contractor availing himself of the moratorium, he should be entitled to payment for the execution of his contract for a specified period; any expenses consequent on suspension to be chargeable against the contractor. It was announced that the Local Government Board are asking public authorities to expedite payment to contractors by making them at short intervals, say weekly or fortnightly.

#### First Atelier of Architecture.

Several members of the above association have enlisted, but those unable to do so are carrying on the work as usual. The first esquisse of the autumn session was held on Saturday last. An exhibition of work done during the summer term of holiday sketches and figure drawings will be held on October 7, when the Medal awarded for work done during the past year will be presented to Mr. H. Bucknell. The Sous-Patron, Mr. C. being now with the armies of France, of the senior working members, Adrian Berrington and Mr. L. H. Bucknell, have undertaken to help the members and do all they can to compensate for the Chaires' temporary absence. The members of the jury will also meet more often, as appears desirable. A revised subscription for working materials has been adopted which should prove economical and convenient, and lead to an increase of membership.

Mr. Maurice E. Webb, President of the Architectural Association, has enlisted private in the Royal Engineers.



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## PROJECTED NEW WORKS.

*Continued from page 182.**Works Extension, Manchester.*

Manchester Corporation Rivers Committee have decided to spend £30,000 on extending the Corporation works at Davy-hulme.

*Houses, Pershore, Worcs.*

Pershore Rural District Council have asked Messrs. Dicks and Waldron to prepare plans for the erection of houses at Wyre.

*54 Cottages, High Wycombe.*

High Wycombe Corporation propose to borrow £11,200 for the erection of 54 cottages at Terriers. An enquiry has been concluded.

*Hospital, Howden.*

Howden (Yorks) Rural Council are to proceed immediately with the construction of an isolation hospital at Howden at a cost of £4,000, including the site.

*Housing Scheme, Southampton.*

A Local Government Board enquiry has been held at Southampton in connection with the Corporation's desire to borrow £11,923 for the purchase of land at Hollybrook Farm, Harrison's Road, and Broadlands Road, as sites for the erection of working-class dwellings.

*Plans, West Hartlepool.*

The West Hartlepool Town Council have passed the following plans: M. Robinson and Son, alterations to the Coliseum, Lynn Street; Rev. W. C. D. Fedden, temporary kitchen and conveniences to Mission Hall, Lynn Street;

trustees of Cameron Hospital, sterilising room at Cameron Hospital; James Dow, lock-up shop, Oxford Road.

*100 Houses, Shirebrook.*

A Local Government Board enquiry has been held into the application of the Blackwell (Derbyshire) Rural Council for sanction to borrow £20,000 for the purchase of land and the erection of working-class dwellings in Shirebrook. It was stated that the Council propose to build 100 houses. Mr. E. P. Cooke, Mansfield, is the architect.

*Plans Passed, Rotherham.*

Rotherham Rural District Council have plans as follows: Extension of premises at Swallownest and Bramley, and for new stores at Brampton-en-le-Morthen for the Masboro' Co-operative Society; forty houses in Flash Lane, Bramley; Primitive Methodist Church at the Model Village, Bramley, and a Wesleyan Church at Brampton-en-le-Morthen.

*£14,000 Scheme, Hamilton.*

Messrs. Cullen, Lochhead, and Brown, architects, of Brandon Chambers, Hamilton, have submitted a scheme for the enlargement and improvement of their institution to the Hamilton Combination Poor-house Committee. The cost is estimated as follows: Main block alterations, £3,250; hospital extension, £3,500; alterations at kitchen, laundry, boilerhouse, etc. (exclusive of cooking appliances and laundry machinery), £2,000; children's block, £2,000; alterations on probationary block, £1,000; Governor's house, £1,100; boundary walls, roadmaking, etc., £500; repairs on existing buildings, e.g., damp-proof

course, alteration of drainage system, facing of stonework of probationary and contingencies, £500—total, £14,000. Consideration of the scheme was deferred for a month.

*100 Houses, Wallsend.*

The Wallsend Town Council adopted the report of their Housing Committee to the effect that 100 houses of working classes should be erected without delay. The Council are to ask the Government Board for permission to acquire eight acres of Corporation land at which would induce builders to build houses of the class required at a date.

*New Park, etc., Mansfield Woodhouse.*

The Mansfield Woodhouse Urban Council have approved of plans and estimates for the laying out of Yeoman Hill and the provision of a caretaker's house, and have decided to apply to the Government Board for a loan of £5,000 to carry out these works. The Council are preparing a town-planning scheme for their district.

*Houses, Kingstown, Ireland.*

Dr. Sherlock Vaughan, Town Clerk, Mr. Dunlop, architect, of the Kinsale Urban Council, have lodged with the Local Government Board plans for seven artisans' dwellings to be erected at Sallynoggin at a cost of £7,900. The Council are now taking steps for the compulsory acquisition of four sites which to build artisan dwellings at Adelaide Road, Adelaide Road, Sallynoggin, Monkstown Avenue, at an estimated cost of £40,000.



TRADE MARK.

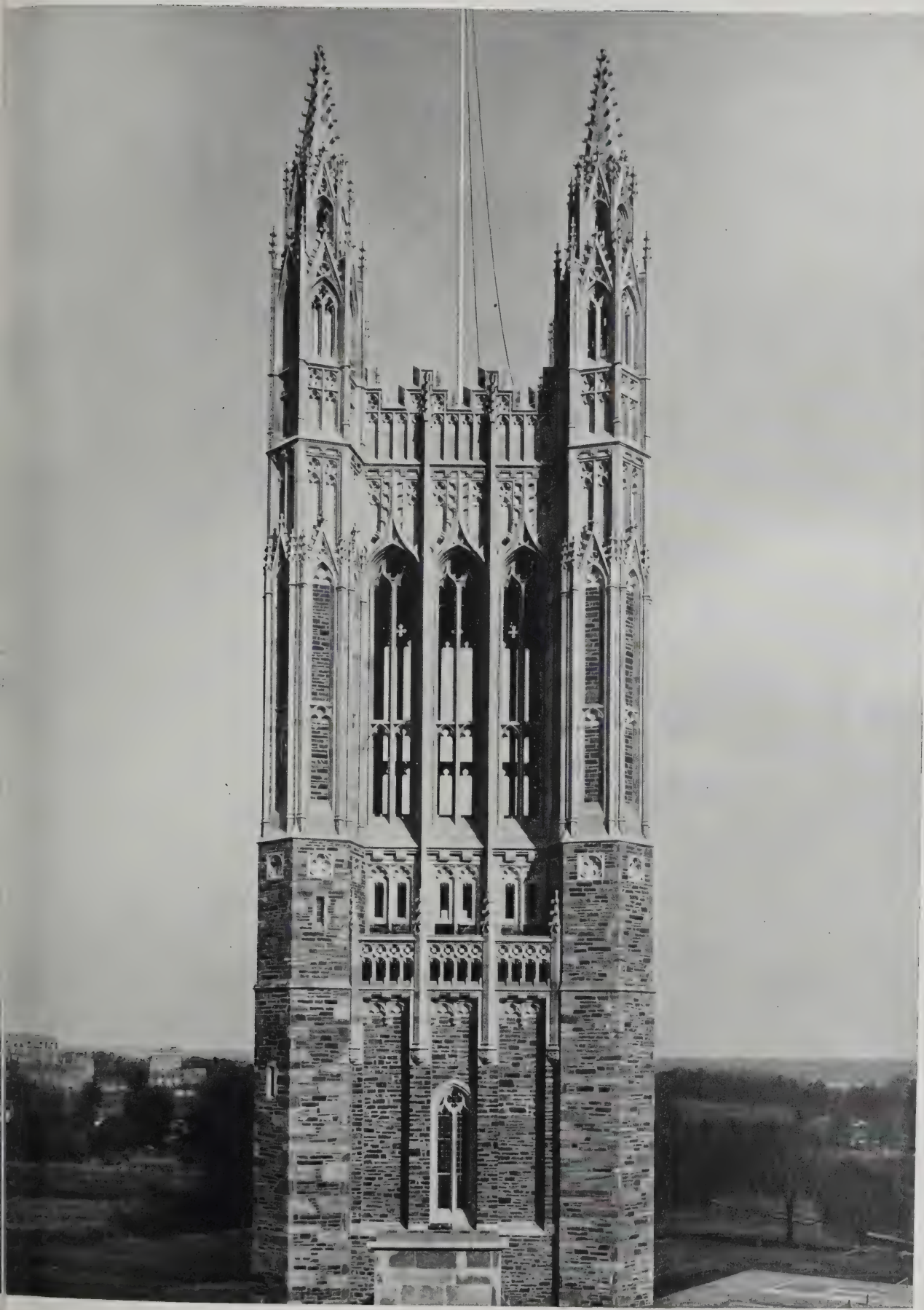
## THE CALL TO ARMS.

Messrs. ROBT. INGHAM CLARK & CO., LTD., in harmony with other large Employers of labour, have decided to place on half pay all employees and workmen joining the Colours and to re-instate them upon the termination of the War.

Messrs. ROBT. INGHAM CLARK & CO., LTD., feel convinced that their large clientele extending throughout the Home Industries will support the Company's efforts to maintain its entire staff during the War, so that its present object of continuing without any reduction, either in personnel or hours, may be achieved.

Caxton House, Westminster, S.W.



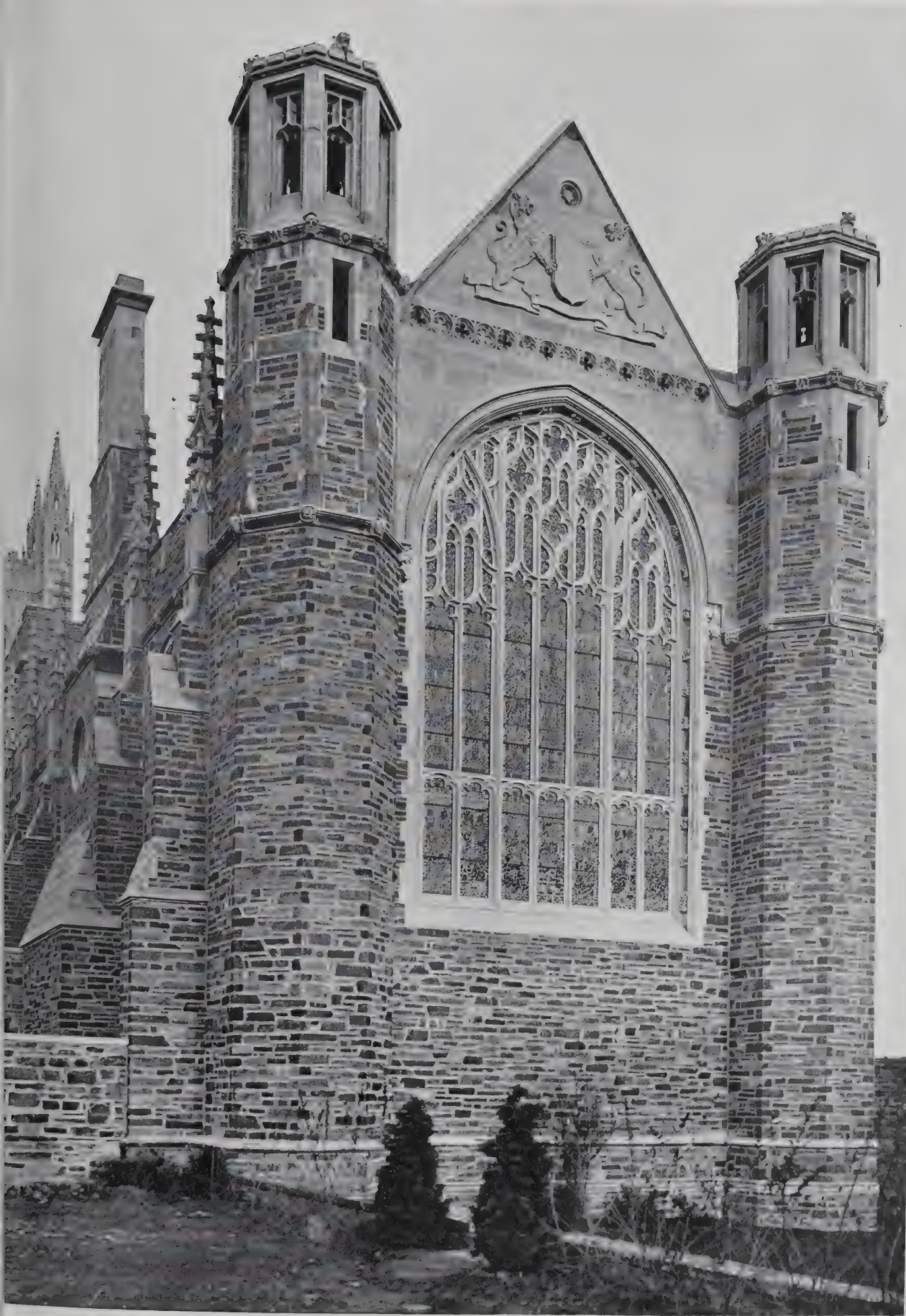


MODERN AMERICAN ARCHITECTURE. IX.—GRADUATE COLLEGE OF PRINCETON UNIVERSITY, PRINCETON, N.J.:  
UPPER PART OF CLEVELAND MEMORIAL TOWER.  
CRAM, GOODHUE AND FERGUSON, ARCHITECTS.



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MODERN AMERICAN ARCHITECTURE. X.—GRADUATE COLLEGE OF PRINCETON UNIVERSITY, PRINCETON, N.J.:  
VIEW OF PROCTOR HALL FROM DEAN'S GARDEN.

CRAM, GOODHUE AND FERGUSON, ARCHITECTS.



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Langham House.

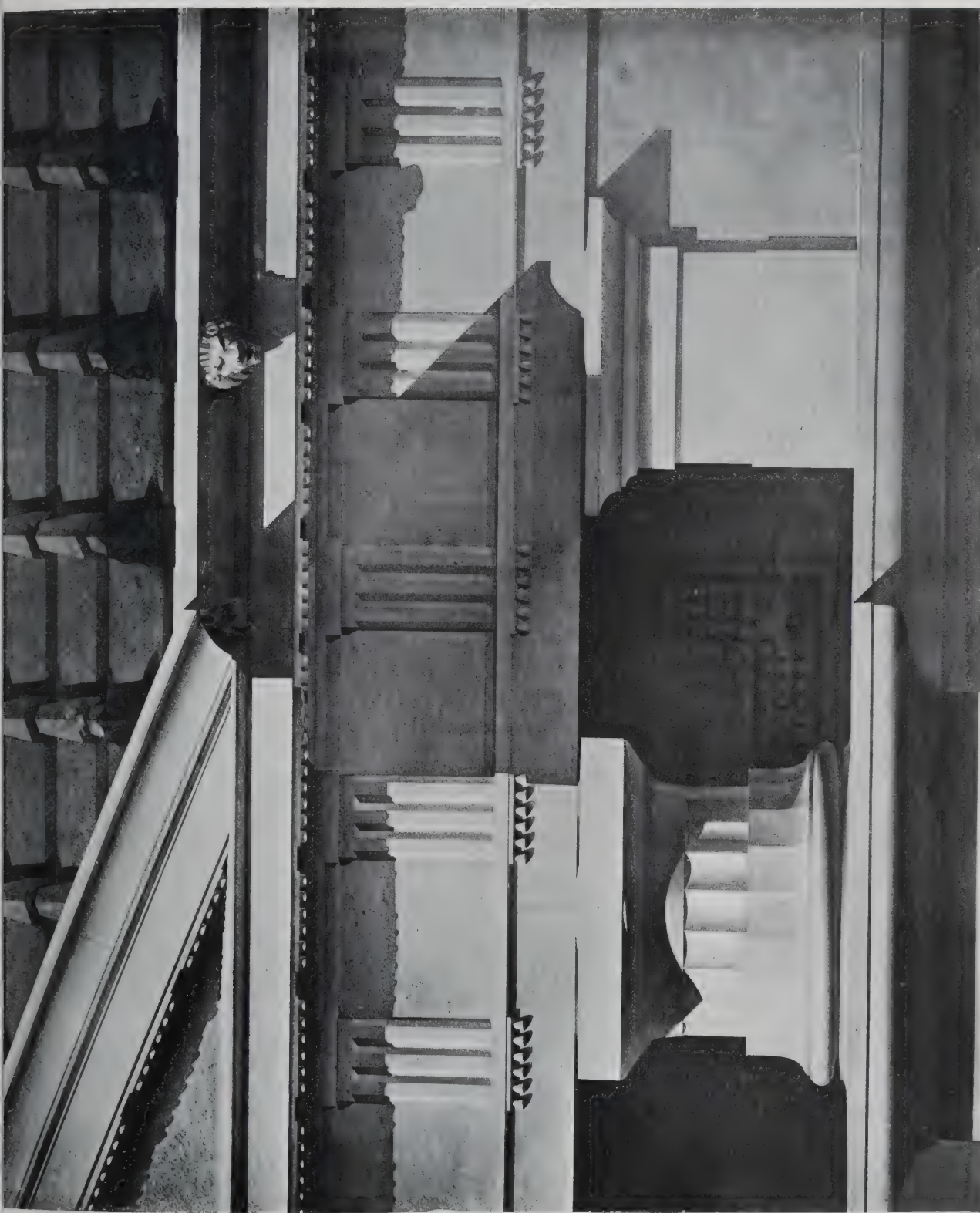


Gordon House.



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STUDENTS' DRAWINGS. XXX.—DORIC ORDER, TEMPLE AT CORI. BY EMMANUEL BRUNE.

(By courtesy of the Department of Architecture, Massachusetts Institute of Technology.)



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STUDENTS' DRAWINGS. XXXI.—PAVILLON COLBERT, THE LOUVRE, PARIS.

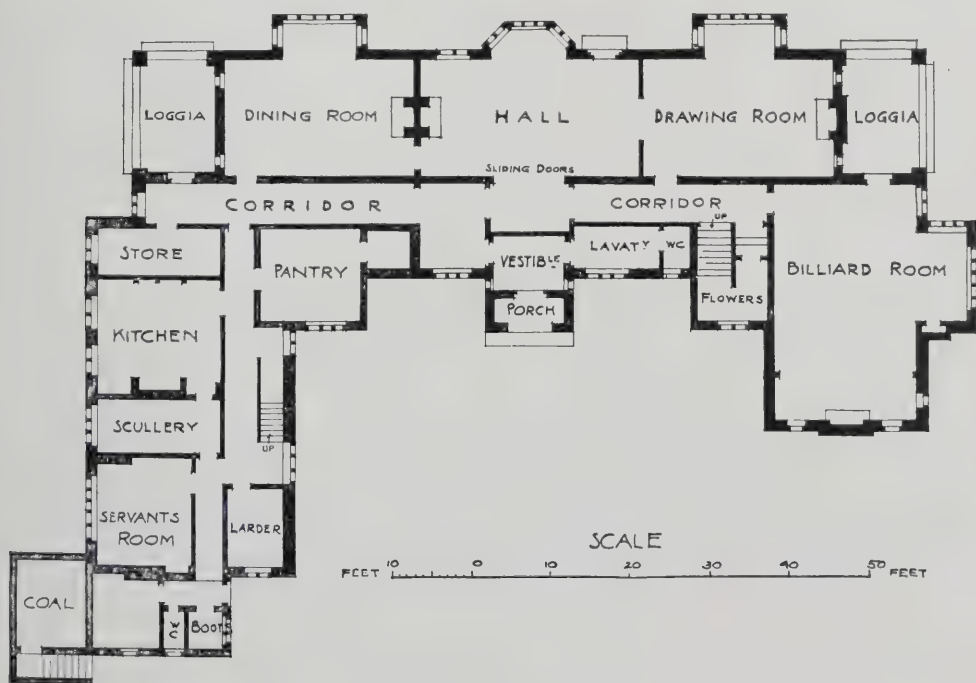
ENVOI, ROTCH TRAVELLING SCHOLARSHIP. BY O. FAELTON.

(By courtesy of the Department of Architecture, Massachusetts Institute of Technology.)



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MODERN DOMESTIC ARCHITECTURE. XXXV.—"HORNCastle," EAST GRINSTEAD: GARDEN FRONT.

P. MORLEY HORDER, F.R.I.B.A., ARCHITECT.



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# THE ARCHITECTS' & BUILDERS' JOURNAL.

Wednesday, September 16, 1914.

Volume XL. No. 1028.

No. 102.



(From Piranesi.)



# THE ARCHITECTS' & BUILDERS' JOURNAL.

SEPTEMBER 16, 1914.

CAXTON HOUSE, WESTMINSTER.

VOLUME 40. No. 102

## EDITORIAL.

IN the House of Commons last Wednesday, Sir Ivor Herbert complained of the serious want of proper preparation on the part of the War Office in regard to recruiting and the treatment of recruits. He told of congestion at regimental depots and other military centres, and of recruits being sent back to their homes after undergoing hardships in being herded together in camps without adequate or necessary conveniences—without means of preparing food, and without provision for washing and sanitation. He had been told by some of the men that for eight days they had never been off the barracks square, nor had their clothes off, and had suffered from contact with verminous persons. Mr. Tennant's reply merely took the form of an apology for his Department, which, he reminded the House, had been for five or six weeks working at high pressure. That is an explanation, but not an excuse. Of course, the conditions are quite extraordinary, but it does not appear that any very extraordinary endeavours have been made to meet them. This is a matter in which the R.I.B.A. War Committee could have rendered immediate and invaluable service; but here they seem, presumably through no fault of their own, to have missed one of their most obvious functions. Surely it should have been easily possible to divide the country into recruiting centres, and to provide each centre with proper accommodation for the recruits. Large numbers of architects are available for such work; and modern materials of construction lend themselves to such emergencies with the utmost facility. Barracks or huts can nowadays be run up with astonishing speed; and having served their temporary purpose for the accommodation of recruits, they could be easily adapted as temporary hospitals, the need for which, unhappily, will be incomparably greater than any that has been hitherto experienced in this country. To bungle the recruiting arrangements was bad enough; to muddle the hospital arrangements would be to run a most serious risk of breeding epidemics that might become of more deadly effect than all the German guns. This is a matter of the highest importance and of extreme urgency, and one in which the R.I.B.A. War Committee, having a plain duty before them, should brook neither denial nor delay.

The deputation from the Association of Municipal Corporations which on September 8 was received by Mr. Lloyd George, Chancellor of the Exchequer, and Mr. Herbert Samuel, President of the Local Government Board, submitted two propositions, of which one was accepted and the other rejected. To the proposal that the Government should make to corporations cost-price advances out of the War Loan, in order that the new capital for municipal undertakings may be secured upon the best possible terms, Mr. Lloyd George assented, saying that the Government were quite

prepared to lend at the rate of interest they themselves paid, plus an allowance for the actual expenses of the State; but to the request that the stock and money of all corporations whose boroughs have a population of over 20,000 should be trustee securities he opposed a polite negative. Both decisions were wise and proper, although at first sight they may appear to be contradictory. Just now it is specially necessary that corporations should be able to borrow from the Government on advantageous terms, but thus to extend the use of trustee securities would have the effect of putting corporations in competition where they ought to co-operate.

Mr. Lloyd George's advice to the deputation was that we must husband our resources in view of the struggle in which we are engaged, and so forth. No doubt sound enough; but it included an observation that seems open to serious misinterpretation. He thought it absolutely necessary," he said, "that the money should be spent for the relief of distress. I think this is the time to embark in great municipal enterprises which have no reference to distress. It could not have been foreseen by the Chancellor that this utterance would be generally construed to mean that corporations should dole out the money in the form of loans getting in return for it either nothing at all or something that is entirely profitless. From the outset I protested strongly against this misapplication of money; and we again urge that the wisest and most economical way is, *pace* Mr. Lloyd George, to put the money to works of real public utility, spending it on wages that are honestly earned, and for which a substantial equivalent is returned. It is emphatically a case in which prevention is better than cure. To allow the workers to lapse into poverty, and to relieve it by mere almsgiving, could not have been the method contemplated by the Chancellor, and it is unfortunate that his words lend colour to such a supposition.

What the Chancellor meant by "great municipal enterprises which have no reference to distress" is no means clear. He probably intended the expression as a warning against over-ambitious schemes of extravagant magnitude. He feared, perhaps, that new facilities for borrowing might possibly induce municipalities to put forward vast projects of planning, and so forth, that normally would require some time to come, and his words, in essence, are simply a counsel of prudence. They are to be construed not literally but liberally; and they very unfortunately suggest the abandonment of municipal enterprise, and the substitution of almsgiving, they also leave it open to municipalities to consider whether "reference to distress" should rather take the form of intelligent anticipatory



tion than that of dubious remedy after the  
 We repeat that it is infinitely better, from  
 point of view, to keep the breadwinners off the  
 by paying them for productive work, than to set  
 ample of unemployment which would have a  
 influence on private enterprise, and would also  
 in the public funds being dissipated in unproduc-  
 and demoralising doles. That, we feel sure, is the  
 in which the Chancellor would wish his  
 nary phrases to be understood. Otherwise they  
 be a counsel of false economy, and would  
 ent a complete revulsion from the Government's  
 exhortations in favour of public and private  
 rise.

r interest, of a sort, attaches to the placing in  
 on of Rodin's "Burghers of Calais" in the  
 ia Tower Gardens, Westminster. At the  
 nt of writing, only the feet of the burghers are  
 , but the work is almost ready for unveiling, and  
 destal, which is 17 ft. high, has not been covered.  
 a somewhat lumpish-looking piece of stone-  
 and its pseudo-Classical style and large plain  
 es contrast rather than harmonise with the  
 Gothic detail of the Victoria Tower, which has  
 hailed as "a most effective background" for  
 onument, which hides up the somewhat absurd  
 or sham entrance to the tower. To our thinking,  
 ig could be much more incongruous, except,  
 ps, the presence there of the monument itself,  
 , however, according to Mr. Frederick Lawton,  
 ,ome few years ago published with Mr. Grant  
 rds an enthusiastic little monograph on the  
 or, was "conceived and executed in the spirit of  
 : sculpture—great simplicity in accessories,  
 intensity in essentials." It is for his crude  
 cism that M. Rodin has been regarded as  
 onary and decadent.

he risk of seeming ungracious, we feel bound to  
 uite frankly that we see no reason why this group  
 l have been inflicted on London. There it is,  
 er, and we must make the best of it. Its own  
 y is almost as interesting as the story it com-  
 rates. The people of Calais asked David  
 ers, about the middle of the nineteenth century,  
 ke a monument in celebration of the six citizens  
 when Calais was captured by Edward III. in  
 offered their lives to save the city from  
 ction, going into Edward's camp, as Froissart  
 cles, "bareheaded, unshod, with halters round  
 necks, and the keys of town and castle in their  
 ." D'Angers died in 1856 without having  
 ted the commission. Clésinger was afterwards  
 ached, but the Franco-German war of 1870 killed  
 roject, which was revived in 1884, when Rodin  
 ffered the fifteen thousand francs that had been  
 ted, with the request that he should produce  
 r a statue of Eustache Saint-Pierre, the Mayor of  
 y, who was the foremost figure in the incident.

lin found the subject greatly to his liking, but  
 is own ideas as to its treatment. He felt that the  
 roes of the incident were inseparable, and so he  
 ed on modelling the five others at his own  
 se. A plaster cast of the work put on view at  
 eorges Petit Gallery of the 1880 Exhibition was  
 led as Rodin's masterpiece. "Beheld from the  
 the citizens compose an irregular double line—  
 before, three behind; they are, in fact, three  
 es enclosed in an oblong or right-angled paral-  
 am, according to the sculptor's mathematic  
 ple. The aged mayor is in the centre. Bowed,  
 n, resigned, he personifies the sacrifice consum-  
 even before death." The other figures show "a  
 r progression of sentiment"—pride, renunciation,  
 regret, yearning, despair.

It was not until 1895 that the monument was  
 erected in the Richelieu Square, Calais, where it  
 occupies a low pedestal. Rodin would have preferred a  
 lofty pillar, and to have enlarged the bronze figures.  
 An expression in the immediately preceding para-  
 graph, "the sculptor's mathematic principle," is  
 explained by a quotation from Rodin's conversations:  
 "One thing I have come to realise is that geometry is  
 at the bottom of sentiment, or rather that each expres-  
 sion of sentiment is made by a movement which  
 geometry governs. Geometry, indeed, is everywhere  
 present in nature." Geometry at the bottom of  
 sentiment!—This, then, explains the subtle aroma of  
 romance of which one always suspected the square and  
 compasses, but it does not vindicate the Goths in their  
 claim to monopolise sentiment.

It appears that the immediate cause of the war was  
 —the housing question! A correspondent of "The  
 Times" who has lately come from Vienna makes, in  
 all good faith, the statement that a common cause of  
 war, the endeavour of the governing classes to divert  
 domestic discontents into foreign channels, has  
 operated very strongly in Austria-Hungary, where the  
 bad housing of the middle classes and of the prole-  
 tariat has been for a long time a sore grievance, which  
 had at length brought the people to the verge of  
 revolution. Dwellings of the humbler sort have been  
 from time to time ruthlessly demolished to make way  
 for palatial buildings in which the people saw so many  
 symbols of the aggrandisement of the wealthy to the  
 detriment of the poor, for whose displacement no  
 adequate provision was made. They were cal-  
 lously and contemptuously left to shift for  
 themselves, and their being forced to herd  
 together in the constant and ever-increasing dis-  
 comfort of overcrowded and insanitary dwellings  
 brought to a head, if it did not actually create, a spirit  
 of rebellion that most probably would have found vent  
 in civil strife if the Government had not resorted to the  
 ancient, desperate, and despicable expedient of  
 declaring war against a foreign power. It is certainly  
 a far-fetched theory; but one cannot help feeling that  
 there may be something in it, and that the housing  
 question may at least form one link in the long chain of  
 events which led up to the fateful declaration of war  
 by Austria against Serbia; Austria, however, being  
 merely the tool of Germany.

Mr. Ralph Adams Cram, of the firm of Cram and  
 Ferguson (formerly Cram, Goodhue, and Ferguson),  
 has just been appointed senior Professor of Architec-  
 ture at the Massachusetts Institute of Technology. Mr.  
 Cram is eminently fitted for such a position. He brings  
 to a fine knowledge of architectural design a rare  
 critical faculty and a gift of literary expression which  
 is probably unequalled amongst American architects.  
 His ability as a lecturer will be remembered by all  
 those who had the privilege of hearing the brilliant  
 paper on "Recent University Architecture in the  
 United States" which he read at the Institute about  
 two years ago. The firm of which Mr. Cram is the  
 principal member have specialised in school and ecclesi-  
 astical architecture, their works including, beside the  
 graduate college at Princeton, which we illustrated last  
 week, the Military College at West Point, Halifax  
 Cathedral, Detroit Cathedral, the Pro-Cathedral,  
 Havana, the Cathedral Church at Toronto, and many  
 other notable buildings. Mr. Cram has acted personally  
 as consulting architect to the Cathedral of St. John the  
 Divine, New York, for a period of two years. His  
 literary work includes: "Black Spirits and White"  
 (1901), "Church Building" (1901), "The Ruined  
 Abbeys of Great Britain" (1906), "The Gothic  
 Quest" (1907), "Excalibur," and "The Ministry of  
 Art."



## HERE AND THERE.

"BARRACKS" has become synonymous with "workhouse" as a term standing for all that is bleakly utilitarian in building, only, however, because in the majority of cases those responsible for the design of barracks have not had a proper sense of the problem before them, and have been deficient in the ability necessary to achieve a satisfactory architectural result. Just now it is an especially popular sight to watch the Guards on their parade ground at the side of Birdcage Walk, and the public having been accustomed to think of barracks as places devoid of ornamentation, and therefore unattractive, it is only to be expected that they should take no notice of Nash's building in front of them. Yet I never pass that way without looking at the pleasing stucco front of the Wellington Barracks, and thinking what a very elegant job Nash made of it. It is quite unpretentious, but the several blocks are admirably grouped, even the roof that spans the yard between the main block and the end pavilions being screened by a deep parapet that plays its part in the architectural scheme. The guard-houses are detached features of interest, well proportioned like the rest of the work, and providing with their little colonnades very happy effects of light and shade, while dominating one end is that mighty portico of the chapel. This is frankly a copy of a Greek Doric temple front—perhaps the Greekiest thing of its kind in London. It may not meet with the approval of the Goths, but, to me at any rate, those great Doric shafts, stuccoed affairs though they be, strike the right impressive note. This portico is as Nash left it in 1838, four years after the barracks themselves had been completed. If we would see what a later generation thought a military chapel should be, it is only necessary to pass inside, where Mr. George Edmund Street, R.A., was at work in 1877. I have not myself been within the portal and so cannot speak from personal knowledge, but the interior scheme is described as being "in the Lombardian style": which sounds ominous.

While speaking of Nash I would refer to the light which Mr. Richardson throws on the architecture of the Regency period in an article on Jean Charles Krafft in the current issue of "The Architectural Review." It was Krafft, in conjunction with Ransonnette, who recorded, by exquisite line illustrations, the many delightful buildings that were being erected in Paris and its neighbourhood during the early years of the nineteenth century. Being a man of ideas, he printed portions of his text in English and German as well as French, and so secured a wide sale for his books. Mr. Richardson tells us that all the leading English architects, including Nash, Soane, Smirke, Hardwicke, and Cockerell, had copies of one or other of these, and "this in a great measure accounts for the architecture of the Regency period, and later for the development of a distinctive style for seaside towns and such suburbs as St. John's Wood, and the suburbs of Bristol, Cheltenham, and Leamington. The reticence and simplicity of the style illustrated by Krafft appealed to English taste, and although the architecture of Regent Street was the outcome of an original mind and unique conditions, there can be no shadow of a doubt that contemporary French architecture offered some part of its inspiration." We have been indebted to the French for most things in architecture, commencing with the great exemplars of Gothic cathedral building, and it is well to recognise that the influence was very pronounced in the architecture of a hundred years ago: just as to-day we may say that the magnificent buildings being erected in the United States are the direct outcome of French example and French methods of training.

Mr. Phené Spires is a well-known *raconteur* of personal incidents concerning architects and architecture which have been brought to his notice in the course of a long professional career. One of which I have just lighted upon, is worth retelling these columns. The occasion was the visit to Victoria to Paris in 1855. There was a reception at the newly-completed Hôtel de Ville by the late M. Davioud, one of the leading architects of the Second Empire—the Fountain of St. Michel, the theatres of the Place du Châtelet, the Trocadéro, and numerous other important buildings were designed by him—was very desirous of being presented to Majesty. He expressed his wish to the Préfet, Baron Haussmann, who, however, said it was impossible on account of M. Davioud's long black beard, which, he said, the Queen would strongly object to, all his aides-de-camp being obliged to shave. Davioud, who was a very handsome man, pondered over the subject, and probably reflected that a beard would grow again; so he cut it off, and in the evening of the reception placed himself in a favourable position to catch Baron Haussmann's eye. But the Baron only gave him a stony gaze, and by. Davioud was furious, and called afterwards the Préfet for an explanation. The Baron expressed his regret, and stated that for the moment he had no slightest idea to whom he was speaking. "I am Davioud," he replied. "Davioud! But what about your beard?" Then, recollecting the interview, he burst out laughing and said, "But, *mon cher*, I recognise you. I saw some actor, as I thought, to catch my eye, and wondered who it could possibly be." The beard grew again, but Davioud was presented.

In connection with domestic architecture I confess that I have a growing aversion to dormer windows. Their adoption seems to have dated from a time when it was thought that if servants could be stowed away in the basement they might nevertheless be put up in the roof. But we are a little enlightened now, and from every point of view I welcome the general disappearance of the dormer. It seems to me that, except on grounds of expense, even this may be disputed—there is no occasion for dormer windows at all. They generally have the appearance of something that is really not part of the original scheme, but which has to be accommodated somehow. We see them sticking their heads over a balustrade, and jutting out as lumpy projections on a steep sloping roof. The mansard roof gives them their best form, but even this I regard as ugly. Rooms in the roof are never a success from any point of view of those who have to live in them. They are hot in summer, often exasperatingly hot, and in winter one freezes in them. Not having straight space for their whole height, the bedroom furniture cannot be disposed in the most desirable manner, and, as is common, the dressing-table is put into the narrow space in front of the window, the one means of getting fresh air into the room is half blocked. Given, rather than that other type of roof with a very low pitch, I have doubts whether even in respect of cost there is much difference between the two methods. The pitched roof allows a very much simpler method of construction; there is no cutting about for dormers, and, what is of great importance, it enables the room to be ceiled square across. Such a room with a dead air-space above, excellent as a non-conductor of heat, is much more comfortable to live in under extreme hot and cold, and there is no question that it is a far more satisfactory exterior effect to be obtained. I am sure it was the Gothic men of the nineteenth century who were responsible for the dormer window that afflicts us so generally at the present day. It is a bad exchange for the type that preceded it.

UBIQ



## BUILDING CONTRACTS: A CLAUSE TO GOVERN WAR RISKS.

SINCE the outbreak of the war we have frequently drawn attention to the ineffectiveness of the R.I.B.A. Form of Contract under the conditions at present prevail. It is obvious that a clause governing war risks will have to be devised and incorporated if the R.I.B.A. Form is to continue in its old and effective use. Such a clause has already been drawn up independently of the Institute by two of our members, who, in allowing us to give it publication, are as follows:

Sirs,—It may be of interest to your readers to whom the enclosed clauses which have been added to the R.I.B.A. Form of Contract, and signed by our members, Messrs. W. L. and M. Agnew, to-day (September 4). We hope you will be able to collect reliable information as to how work is being carried on at the moment.

On this particular job went to tender just before the Bank Holiday and the declaration of war. When the office was opened on August 4, the tenders due to come in on the following Friday, it was found that two or three builders contemplated increasing quantities and not tendering, the remainder adding percentages to cover war-risks with very different ideas as to what the amount of the same should be and were further safe-guarding themselves by adding a variety of endorsements to be added to the contract, which must of necessity have had the result of delaying the work.

To keep things going we circularised the builders and their prices were to be sent in and priced as before the war on the understanding that the contract be amended, as it since has been.

The additional clauses have been approved by Messrs. Agnew's solicitors, and if they are of any use to your brother professionals at the moment, by all means let them be used.

For our clients are, we think, to be congratulated on a patriotic act, and it is to be hoped that many of them will be found to do the same and keep work going.

"C. HARRISON TOWNSEND and

"C. H. B. QUENNELL.

"Joint Architects."

Additional conditions of contract dealing with prices of materials or cost of labour arising from the state of war now affecting the British Isles.

The employers will pay to the contractors, in addition to the prices contained in the priced bills of materials forming a part of this contract, any increase in the prices of materials or cost of labour, provided such increase shall arise solely from the state of war now affecting the British Isles, and provided such increase shall be actually incurred by the contractors in respect of materials purchased or labour employed by them after such increase shall have actually taken place, and provided such increase shall be proved to the architects as follows:—The like shall be produced to the architects as the employers shall require, and will prove to their satisfaction that such increase shall have actually taken place and shall have been incurred by the contractors; and provided such increase, together with a profit thereon of ten per cent., is to be added to the contract amount at the completion of the work.

The contractors shall before incurring any such increase give notice in writing of such increase and the amount thereof to the architects from week to week, and shall obtain their written consent thereto, if the amount of any such increase be such as the employers shall not in their sole discretion be willing to meet, the employers shall be at liberty by notice in writing to the contractors to suspend the works

or wholly terminate the contract forthwith, and thereupon the works which shall have been theretofore executed by the contractors shall be measured up and valued according to the prices in such bills of quantities plus any such increase as shall have been theretofore incurred by the contractors and consented to by the architects as aforesaid, and a profit of ten per cent. and the total amount as certified by the architects shall be paid to the contractors as a final settlement of the amount due under the contract, and the contractors shall have no further claim against the employers. Provided always that if in consequence of such state of war the prices of materials or cost of labour shall, in the opinion of the architects, be proved by market quotations, and the like to be reduced below those appearing in the said bills of quantities, such reduction plus ten per cent. shall be set off by the architects against the contract amount or against the certified total amount referred to in the last preceding clause.

We are glad to publish the above war-risk clauses, which seem to cover all possible contingencies. Architects generally will doubtless be glad to avail themselves of Messrs. Townsend and Quennell's permission to incorporate the clauses in their own contracts. It is to be hoped that this very important matter will not escape the attention of the Institute, whose authority should be given without delay to some such additions as those set out in the preceding paragraphs. We are glad to hear that definite action with regard to establishing a schedule of prices of materials is being taken by architectural and building institutions. The contractors for the building above mentioned are Messrs. F. and H. F. Higgs.

## THE PLATES.

### *The Opera House, Paris.*

AN article on this great building is given on page 193, and it is unnecessary, therefore, to refer to it in any detail here. In connection with the plan, however, the following full list of the several parts will be found useful: 1, Public vestibule; 2, public entrance for carriages; 3, state entrance; 4, grand vestibule; 5, grand state staircase; 6, 6, private vestibule and staircase to state box; 7, 7, valets; 8, aides-de-camp; 9, service staircase; 10, grand staircase; 11, 11, grand side staircases; 12, 12, secondary staircases; 13, 13, corridors of orchestra stalls and amphitheatre stalls; 14, 14, vestibules of amphitheatre stalls; 15, staircase to parterre; 16, 16, entrances to orchestra stalls; 17, orchestra stalls; 18, parterre; 19, 19, stage boxes; 20, 20, boxes; 21, 21, porters' rooms communicating with stage; 22, staircase for restaurant service; 23, doctor's room; 24, police; 25, dressing room; 26, lift; 27, 27, water-closet vestibules; 28, water-closets; 29, stores; 30, 30, ventilation; 31, gas and smoke pipes; 32, 32, water-closets; 33, 33, administration staircases; 34, 34, secondary staircases; 35, principal stage staircase; 36, orchestra; 37, footlights; 38, stage; 39, 39, wing; 40, 40, decorators' shops; 41, 41, staircases; 42, supers' gallery; 43, supers' room; 44, property shop; 45, 45, chorus; 46, 46, architectural department; 47, 47, passages; 48, 48, caretaker's lodgings; 49, 49, principals of chorus; 50, costumes department; 51, 51, chief stage manager's office; 52, general manager's office; 53, stage manager's office; 54, 54, administration office (dancing); 55, leader of chorus; 56, works manager's office; 57, gas inspector's office; 58, stage upholsterer; 59, various stores; 60, engineers' cupboards; 61, staircase; 62, 62, water-closets; 63, open court; 64, open court.

### *Additions to Redisham Hall, Beccles.*

The additions which have been made to Redisham Hall by Mr. H. M. Fletcher are interesting alike for the



ingenuity of manner in which the interior alterations have been effected and for the quiet dignified character given to the exterior. The house is an old one, to which a servants' wing had been added about 1800 and a billiard-room wing about 1860. The servants' wing was very inadequate, and in the course of Mr. Fletcher's alterations was pulled down and a new wing built to correspond with the north wing. The east drawing-room was turned into a hall, the entrance passage was thrown open to this by arches, and groined to improve its proportion, while stairs were contrived as shown. A porch was added, to protect the house, with two doors. The billiard-room, which had a flat plaster ceiling 18 ft. high, was altered by the insertion of an enriched segmental ceiling. The small cast-iron balcony, 3 ft. 6 in. wide, on the garden front, was taken away, and a brick terrace, with steps of Portland and paving of York stone and a wrought-iron balustrade, was substituted. The builders were J. Young and Son of Norwich.

*Canada House, Kingsway, London.*

Kingsway, the great new thoroughfare between Holborn and the Strand, is now almost completely lined with new buildings. Among those yet to be built is Canada House, of which we publish a line perspective and a working drawing. The architects, Messrs. Trehearne and Norman, have been obviously, and quite properly, influenced in their design by the scale and character of existing buildings which make the environment of the proposed new premises. The architects have here, as in other premises of which they are the authors, succeeded in imparting a general air of lightness and elegance which, in the case of such large blocks, is not always so happily attained. It must

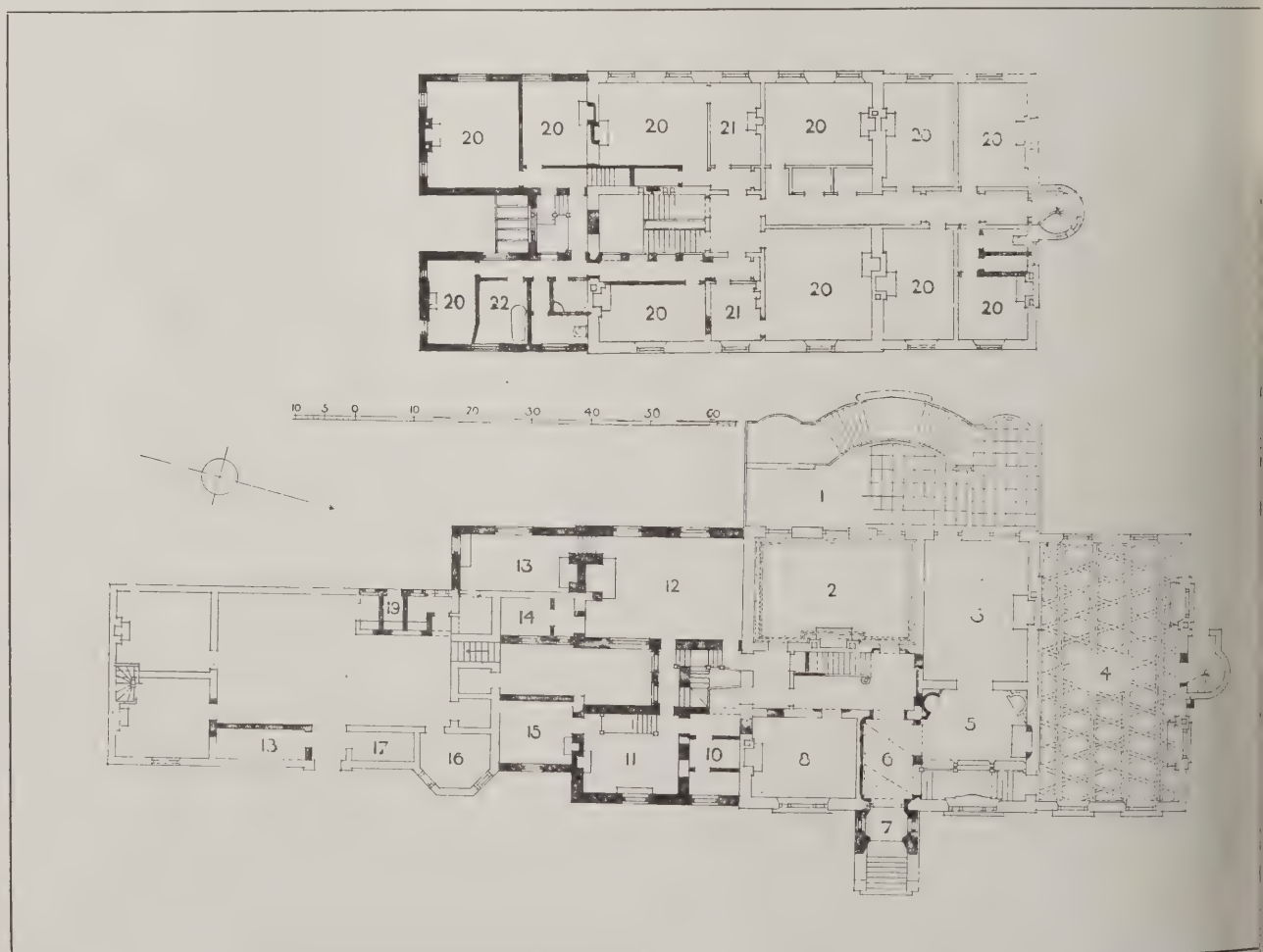
not be forgotten that these are business premises that the problem was how to render them attractive appearance, as well as expressive of their purpose without sacrifice of dignity. This problem has too often much less successfully solved, and the architects must certainly be congratulated on the character of the decorative features, as well as on the general excellence of the composition. We should have liked a more impressive chief entrance; obviously this could not have been given without sacrificing a good deal of precious shop-front space.

*A Roman Altar and Vase.*

This typical example of a Roman altar with does not call for description. It is a very rich piece of ornamentation that must be studied from the Piranesi drawing, which, by courtesy of the Architectural Department of the Massachusetts Institute of Technology, we are able to reproduce.

SUBSCRIBERS ABROAD.

COMMUNICATION with foreign countries is greatly interrupted in consequence of the war. It is probable that our subscribers abroad are not receiving their copies of THE ARCHITECTS' & BUILDERS' JOURNAL and THE ARCHITECTURAL REVIEW as regularly as in ordinary circumstances. They will, of course, understand that we are not responsible for delay in delivery, as we are continuing to post the copies regularly to all countries except Germany and Austria-Hungary. We have no reason to doubt that these copies will eventually reach their destination.



1, Terrace; 2, Dining Room; 3, Drawing Room; 4, Billiard Room; 5, Hall; 6, Entrance Hall; 7, Porch; 8, Study; 10, Lavatory; 11, 15, Butler's Room; 12, Kitchen; 13, Scullery; 14, Larder; 16, Dairy; 17, 18, Coal; 19, W.C.; 20, Bedroom; 21, Dressing Room; 22, Bathroom.

ALTERATIONS TO REDISHAM HALL, BECCLES, SUFFOLK. H. M. FLETCHER, F.R.I.B.A., ARCHITECT.



## THE PARIS OPERA HOUSE.

[Specially Contributed.]

The Paris Opera House is of very considerable interest at the present time; first, because of the part which it played in the war of 1870-71, and, secondly, because of the influence which it is likely to exert over the designs which will shortly be in competition for the National Shakespeare Memorial to be erected in London. The building was not towards completion when the Franco-Prussian war broke out, but it was not sufficiently advanced to be put into use. Accordingly it was claimed by the military authorities, and was put to the successive uses of a hospital, a military store, and a semaphore station during the investment of Paris. Subsequently a part of the building was used as a prison, and later as occupied by the Communists. The extent of damage inflicted during these vicissitudes was considerable, and it is stated that a sum of £12,000 had been expended in works of reparation. It is not likely that the Opera House will be subjected to any such vicissitudes during the present war, the Germans having been effectually checked in their advance on Paris; and for the reasons given above it will be interesting to know something of the history of this very remarkable building.

As on December 29th, 1860, about which time the great scheme of street improvements initiated by Baron Haussmann was in progress, the competition for the Opera House was opened. A few weeks were allowed for the preparation of designs, of which no fewer than 170 were submitted. These were reduced to forty-seven, then seven, but at the adjudicators coming to a final decision. Finally, a limited competition was opened, and the design of Charles Garnier was unanimously selected. At this time, Garnier, at this time, was a comparatively unknown

man, thirty-five years of age. A brief sketch of his career will enable a better understanding of the great building, which is undoubtedly his masterpiece. He was born in Paris, in 1825, and at the age of seventeen entered the Ecole des Beaux-Arts as a pupil of Leveillé and Lebas. In 1848 he carried off the Grand Prix d'Architecture. It was during his pupilage at the Ecole that he became the fast friend of Baudry, who was afterwards to execute those magnificent decorations in the foyer of the Opera House.

After a course of study in Rome, Garnier travelled with Théophile Gautier and Edmond About in Italy, Greece, and Turkey, returning to Paris in 1854. Eight drawings of the actual condition and a restoration of the "Temple de Jupiter-Panhellénien" at Egina—made in 1852—were exhibited at the Salon of 1855. In the meantime Garnier had been appointed sub-inspector of works for the restoration of the Tour-St-Jacques, a small and ill-paid post; but fortune favoured him in 1860, when he became architect to the city of Paris. With this brief summary of Garnier's early activities, we may return to the Opera House competition, which was to establish his reputation as one of the most brilliant architects of his time.

At his own expense Garnier had prepared a plaster model of the Opera House, and this was exhibited by a special decree (without appearing in the catalogue) at the Salon of 1863. Work on the building was begun at once. Garnier had an unlimited supply of money at his disposal, and he was able to give full scope to his vivid imagination. The State had demanded a building which in every respect should be the most magnificent of its kind in the world, and Garnier set out with the determination to provide it. That he achieved the object in view is likely to be generally admitted. The building is certainly conceived on a



THE OPERA HOUSE, PARIS: DETAIL OF SIDE ELEVATION. CHARLES GARNIER, ARCHITECT.



grand scale, and it cannot be denied that both inside and out it conveys a sense of overwhelming magnificence. The detail, indeed, is wonderful in its richness of elaboration, and stamps Garnier as an artist of remarkable creative genius; but in spite (or perhaps because) of its wealth of decoration the building, externally at least, is somewhat heavy and depressed in appearance. By overloading his façades with ornament, Garnier has obscured much of the strength of its composition. A large part of the decoration could well be omitted, fine as it undoubtedly is; and had Garnier but put a curb to his exuberant imagination he would probably have produced a design the total effect of which would have been incomparably more impressive than that which we see to-day.

Before beginning his great task Garnier made a thorough tour of Europe, studying theatre design in all its manifold aspects. He decided to adopt a central system of planning, and no doubt based his plans largely on the older Continental playhouses. The grand staircase, for instance, is obviously a development of that in the Bordeaux Theatre. It is very cleverly conceived, being so arranged that an extensive vista is secured in all directions. Criticisms which have been made concerning Garnier's plan are that it does not provide adequate staircases for the upper tiers, and that the separation of the different parts of the audience for purposes of entrance and exit is disregarded.

The foundations, which go down to a depth of 70 ft., were begun in August, 1861. Great trouble was experienced with water, eight large pumps having to be kept at work day and night for a period of eight months. The foundation stone was at last laid in 1863, and by 1869 the building was far enough advanced to receive the roof; but, the war intervening, all progress was arrested, and the Opera House was not finally completed until 1875, the opening performance being given on January 5 of that year.

The Opera House is the largest theatre in the world, occupying an area of 13,596 square yards (or roughly three acres). It contains seats for 2,156 persons only, which is less than the number accommodated by the Opera House at Vienna or the vast theatres of La Scala at Milan, and San Carlo at Naples. Nothing could well surpass the magnificence of its interior decoration. In its erection the following materials were used: Green and red granite from Sweden and Scotland, yellow and white marbles from Italy, red porphyry from Finland, brocatello from Spain, and marbles of various colours from different parts of France. The cost of the site amounted to 10½ million francs (£420,000) and that of the building itself to 36,500,000 francs (£1,460,000).

The chief approximate dimensions are as follows: Width of proscenium opening, 52 ft. 6 in.; height of proscenium opening, 45 ft.; curtain line to front of first tier, 83 ft. 6 in.; third tier, 84 ft. 6 in.; curtain line to furthest seat, 101 ft. 9 in.; highest seat above street, 72 ft. 3 in.; lowest, 20 ft. 6 in. The stage is 173 ft. wide inside the containing walls, and 86 ft. 9 in. deep, the furthest wall at the back of the stage being 156 ft. 9 in.

A series of illustrations showing details of the Opera House to a large scale was published in the Journal during 1913, the dates of the issues being as follows: January 22, 29; February 5, 12, 19, 26; March 5, 12, 19; April 2, 16.

The subjects represented included details of sculpture and carving from all parts of the building, both in lead and stone. They were reproduced from a fine series of original photographs, many of which were taken before the work was actually fixed in position. Readers are advised to refer to this very remarkable series, from which a good idea may be gained of Garnier's wonderful facility in design. Garnier's detail is never vulgar or gross. In the case of the Paris Opera House a remarkably high level of excellence is maintained throughout.

## CORRESPONDENCE.

*The Editors disclaim all responsibility for the statements made, or expressed by correspondents, who are asked to be brief, and to write only of the paper. Every communication must bear the name and the sender.*

### *Architects Enlisting.*

*To the Editors of THE ARCHITECTS' AND BUILDERS' JOURNAL.*

SIRS,—Your readers will no doubt be interested to know that recruiting, for the Royal Engineers and other branches of His Majesty's Forces, of architects and surveyors and their friends has continued briskly since your last issue. We have good numbers of those already joined, who hope to welcome many more drafts to their ranks in the near future.

Although the Royal Engineers temporarily suspended recruiting at the beginning of this week on account of the rush of recruits, they are now enlisting again. Men wishing to join should send in their names to the Recruiting Office, Our last draft met here at 5 p.m. on September 11, and presented themselves for inspection at 8.45 the following morning.

ALAN POTTER

Hon. Sec. A. A. War Service Bureau

18, Tufton Street, Westminster, S.W.

### *"Impersonal Art."*

*To the Editors of THE ARCHITECTS' AND BUILDERS' JOURNAL.*

SIRS,—I am delighted that in his second issue "Impersonal Art" [see issue of August 5, p. 11] J. R. Adamson has written one sentence with which I am in complete agreement. He affirms the principle that the general principles which underlie art are impersonal. When he adds, however, that this is a statement which nobody denies, I very much differ from him, for I am under the impression that nine artists out of ten do most strenuously object to it. Just because this truth is so seldom accepted, I felt led to insist upon it at some length in my article published in the issue of June 10. My contention against Mr. Adamson is that having acknowledged this part of the argument he seems unwilling to follow it to its logical conclusion. If good art is based on general canons, then the good artist must necessarily be acquainted with them. He does not receive his ready-made from others, but must himself constantly generalising and applying the canons he has discovered to new conditions. For this the imagination which Mr. Adamson rightly considers the essential quality of the artist is constantly requisitioned. But there is nothing antagonistic between reason and imagination; for imagination includes imagination as the greater includes the lesser. The exercise of a fancy which is not controlled by the love of form is mere wool-gathering, and is not creative artistic activity. True imagination is more than the application of reason to a matter which is other than the actual. The transgression of an æsthetic rule is an immense imposition on the artist, for the universality of a principle is measured by the variety of its manifestations; and in testing the principle he is led to invent all manner of new forms, each of which has the quality of the original. The artist who has gained such an intellectual freedom pursues his task in a spirit of adventure. But to Mr. Adamson a principle is something dull and mechanical which can be rightly applied by dull and mechanical people. He thinks that by such methods a co-operative designers would infallibly achieve the same complete success as the individual artist could. This belief implies a failure to perceive the distinction between a principle and a formula. As he says that any number of people apply the same principles and rules of mathematics correctly, so any problem can arrive separately at the solution.



conclude that his idea of exact science was from little engineering handbooks in which al formulæ are collected. Any number of can apply those formulæ, but they are not maticians. Similarly any number of people can use of the stiff "rules of proportion of Gwilt" are the merest dogmas totally unjustified by, but they are not artists.

Adamson misunderstood me if he imagines that ng to my view "impersonal art" is something accomplishment. It can only be created by en, for none but the great have the faculty of completely impersonal. There is no doubt a x involved in this assertion: but paradoxes t necessarily illogical. I may remind Mr. on of the very famous saying of the Chinese pher Lao-tze—"Put your person behind, and erson comes to the front." A. T. E.

*An Informal Architectural Society.*  
Editors of THE ARCHITECTS' AND BUILDERS' JOURNAL.

—I notice in your issue for September 9 on the al page an article in which you remark upon the ly unattractive nature of sessional meetings of tural societies, and the necessity for individual ion of opinion. It may interest you to know i Leicester, last May, "The Architectural was formed, and it already has a membership of An annual subscription is made, but there is mpt to hoard up the income, which is used for of a smoking-room for meetings at a local café, ery, postage, and other expenses.

esident and committee are entirely dispensed ecause our object is to obtain informal meetings a all members can discourse and criticise freely eeling embarrassed. The enclosed abbreviated ars will give an idea of the informal nature of utherings, which, unfortunately, have been ned since the outbreak of war, in order to allow rs to enlist in the Army, several having already o; but upon their return we hope actively to in our undertaking.

ester. FRANCIS MORLEY, A.R.I.B.A.  
ging from the particulars enclosed, which are at too long for publication in these columns, it ous that the Architectural Guild should fulfil a urpose. It is limited to non-practising members eicester and Leicestershire Society of Archi- ough not governed by that body), and its ings are apparently quite informal. All rs are expected to provide material for on and criticism.—EDS. A. and B. J.]

*"Brightening" Sessional Meetings.*  
Editors of THE ARCHITECTS' AND BUILDERS' JOURNAL.

—An "Editorial" on p. 170 of your issue of ber 9 fills me with sore misgivings and vague I had thought—vainly, it would appear—rdinarily sane profession like ours was immune e ravages of the deadly "brightening" e, if somewhat prone to occasional and sporadic of *merulius lacrimans*. I must admit, however, confidence was rather shaken when one of the tural organisations—I am glad to forget ntroduced a cinematograph, which brought us e nearer to the gramophone.

ldly, unless our meetings are to assume the xion of variety entertainments (the performers, ardly be expected to compete successfully e more regularly qualified practitioners), I do e that anything can be done to render them tive." Of course, the "how-to-brighten cricket" always with us. It was an Early Victorian

specimen of this breed who said that Thackeray's lectures "wanted a piano"; and it has been supposed that there are in existence those who want to make the St. Paul's whispering gallery shout and the dome revolve to an accompaniment of coloured lights; but are these giddy-pates worth considering?

Nor can I wholly agree with the writer of the "Editorial" that meagre attendance is due to dull subjects drearily discussed. It is due mainly to the knowledge that we shall know all about it from the papers, and therefore need not be at the trouble and expense of attending the meetings; which, by the way, are held about three hours too late in the evening. It would have to be a very strong "attraction" that would keep me in Conduit Street until ten at night, and there seems to me to be no particular reason why it should not be possible to get away from these meetings in time for dinner.

It has always seemed to me that, generally speaking, the papers read are of a high standard of excellence both in subject and treatment, and that as a rule they are remarkably well read, considering that the readers cannot be expected to have made a special study of elocution and voice-production. Judging from my own experience, I do not think that the attendances at R.I.B.A. meetings are meagre as compared with meetings of other professional (not architectural institutions; and I do not believe that anything could be done to "attract" larger audiences. Your writer's observation that some subjects of exceptional importance have attracted specially large meetings conveys its own explanation; but all papers cannot be of exceptional importance.

ARIBA.

THE LATE MR. E. INGRESS BELL.

BY the courtesy of Sir Aston Webb we are able to publish the accompanying portrait of the late Mr. E. Ingress Bell, who died on August 30. A short obituary notice was given in last week's issue of the Journal.



THE LATE MR. E. INGRESS BELL.



### EDINBURGH ARCHITECTURAL ASSOCIATION.

Vol. VIII. of the "Transactions of the Edinburgh Architectural Association" includes an interesting selection of papers read before the Association during the last five years; the volume beginning with "The Application of Art to Industry," by Mr. J. A. Morris, F.R.I.B.A., who offers craftsmen the aphorism that: "Whatever the work, whether in simple designing, or in craftsmanship and design together, which is immeasurably better—and such as prevailed in early days when craftsmanship was in true union with and not divorced from design—let us see to it that the forms we use are alike suitable to the material we employ, the idea we wish to express, and fitting also to the use and purpose of the thing we make." Trite enough, but become so through the necessity of keeping the aphorism constantly in view. Mr. Arthur Pordage, Firemaster, Edinburgh, read a remarkable paper—which we reproduced at the time—on the "Effects of Fire on Fire-resisting Construction," in which he shows from personal experience the behaviour under fire of various descriptions of material, and makes shrewd observations on planning and construction from a firemaster's point of view. He makes it clear that the disposition of spaces, partitions, and, above all, the particular uses to which the building is intended to be applied, are the governing factors in fire-resisting construction; it is erroneous to apply the term to the structure alone. He lays particular stress on the importance of air-currents. A paper by Mr. J. H. Stevenson, Advocate, on "Heraldry as Applied to Architecture," is all compact of interesting information. It is mentioned that the earliest examples of the heraldic shield in architecture in Scotland are those in the Ayrshire castle of Dundonald, a moated fortress which may have been built some time about 1300 A.D. Among the observances of heraldry prominence is given to the sentiment of respect, which is the soul of chivalry. Hence figures in juxtaposition should always be face to face: and in the decorations of a room all other arms are turned towards the arms or portrait of a king or other principal personage. Similarly, when every church contained an altar, the arms on the north wall or dexter side of the building were by rights represented contourné, to avoid the appearance of turning their backs upon religion and the service of the church. Mr. Hippolyte J. Blanc, R.S.A., has three papers, on Kelso Abbey, on Floors Castle, and on Hopetoun House respectively. The first was originally founded in 1117, but of the "new" abbey founded in 1128 all that remains is a fragment consisting of nearly three equal arms of a Greek cross, with a fourth arm that is less clearly defined. The plan of the Abbey is unique in Scotland, being in type somewhat like that of Ely Cathedral. Floors Castle, built in 1718, is thought to have been designed by Vanbrugh, but in 1849 it was entirely transformed by Playfair, of Edinburgh, who, however, left intact two doorways that are unmistakably of the Vanbrugh period. Hopetoun House, begun in 1696, is the work of Sir William Bruce and shows much dignity of composition and refinement of detail. Other papers deal with "Scottish Architecture from the Fifteenth to the Seventeenth Century" (by Mr. A. N. Paterson, F.R.I.B.A., who shows that while up to the fifteenth century church architecture in Scotland was purely English or Anglo-Norman, its domestic

work, to the middle of the sixteenth century, was essentially indigenous): "St. Andrews," by Dr. D. Hay Fleming, and "Durham Castle" and "Durham Cathedral," by the Rev. Dr. Gee, F.S.A. To reproduce transactions in the handy form of a neat volume is an example that might profitably be followed by other architectural associations, before which are read many valuable papers that deserve more prominence and wider publicity than are usually accorded them.

### NOTABILIA FROM NEW BOOKS.

#### *The Crime of the Gothic Revivalists.*

If the middle of the nineteenth century may fairly be called the Age of "Restoration," some name will need hereafter to be found for the present time, when people are busy either in doing that "restoration" work or in making repairs and enlargements in a different and more knowledgeable spirit. The crime of the Gothic revivalists was in the destruction of the work of periods which their mediæval zeal held in abhorrence. They were so certain of their absolute rightness of view that Renaissance work was resolutely destroyed and its place taken by lifeless Gothic imitations, which sufficiently confessed their own modernity. The situation to-day is altogether different. Architects are far more clever in catching the old spirit when additions have to be made, but this very cleverness will make problems for the antiquary of the future.—"Small Country Houses: Their Repair and Enlargement," by Lawrence Weaver. (Offices of "Country Life" and George Newnes, Ltd.)

#### *Points in Painting.*

The cost of keeping property painted has been likened to that of insurance—a tax, it is true, but a very necessary one. Some short-sighted owners of house property very foolishly neglect to repaint as often as is necessary, and not infrequently delay the work until the greater part of the paint film has disappeared, the result being that a permanent condition of decay is started, which often cannot be arrested, as, for instance, in the case of iron, which, if once rusted, will continue to oxidise even after a coat of paint has been applied, unless every particle of rust is first removed. Wood which has commenced to decay will also continue to do so even when a coat of paint is given to it, for it must be remembered that the paint film is by no means impervious to air and water, however great are the efforts which are made to render it so. It should be very clearly understood that there can be no one paint which is suitable for any and all materials or all situations. A paint which would be very suitable for outside woodwork in the pure air of the country might be wholly unsuitable for a house situated on the seashore, or in a smoky town, such as London, Sheffield, Widnes, or Runcorn. Again, different surfaces require entirely different paints, a variation being made not only in the pigment but also in the thinners (oil and turpentine). Thus, in painting on iron much less thinners are required than would be necessary on an absorbent surface, such as cement. Again, the constituent parts of a paint must be varied exactly in accordance with the condition of the surface, and the painter, knowing this, uses more or less thinners when painting on different kinds of plaster or on different kinds of wood.—"Commercial Paints and Painting," by Arthur Seymour Jennings. (Constable and Co.)

### PROJECTED NEW WORKS.

#### *Public Baths, Taunton.*

The Taunton Town Council are advertising for a site in the town for the erection of public baths.

#### *Baths and Laundry.*

The Sheffield Corporation propose to borrow £24,214 for the provision of public baths in Langsett Road, Hillsborough, in Merton Lane, Wincobank, and the erection of public washhouses, at Daniel Lane, Upperthorp, and a laundry near Penistone Road. Government Board inquiry has been made.

#### *New Town Planning Scheme.*

It is understood that the Local Government Board have given authority for the preparation of five further town planning schemes under the Housing and Town Planning Act, 1909. The schemes are authorised to be prepared by the Local Authorities of Barrow-in-Furness, Newport, Mon., and the urban districts of Hendon and Otley.

#### *Railroad Construction, Essex.*

A contract has been signed for the construction of the Central Essex Railway, which, when completed, will be worked by the Great Eastern Railway. The Essex County Council has stipulated that £15,000 shall be set aside for the construction of bridges to meet the requirements of motor traffic. Eminent engineers have been appointed to supervise the work.

#### *Houses, Alnwick.*

At a meeting of the Alnwick Urban District Council, plans, estimates, and valuations in connection with the construction of new houses for working men at South Road, and plans showing the proposed new roadways in the Collieston area on the south side of Claydon Road, were approved. It was decided that an application be made to the Local Government Board for sanction to borrow £350 for the new roadways in the Collieston area.

#### *Improvements, Weymouth.*

Weymouth has obtained an Act of Parliament for the carrying out of big public works of improvement in accordance with the directions of the Government Board they are to be carried out in order to provide employment during the winter and alleviate the distress resulting from the first scheme to be proceeded with the construction of the development of the bluntness of a tidal estuary of 250 acres, by the construction of an embankment road towards which the Dorset County Council is finding nearly £14,000.

#### *Tweed Bridge, Berwick.*

It is expected that with a lessening unemployment the Road Board will shortly proceed with the construction of the proposed bridge over the Tweed. The Town Council have had an interview with the Road Board in London regarding the cost, which is estimated at between £100,000 and £150,000, the original proposal that the Government would pay 50 per cent. of the cost, the counties of Northumberland and Berwickshire to contribute the remainder. Preliminary borings have already been made in the bed of the river.



## QUIRIES ANSWERED.

### Builders' Hoisting Gear.

L. (Barnsley) writes: "Is there any giving particulars of builders' hoisting gear? What, for instance, is a 'central' pulley-block? It seems to me that builders have but little information on this matter and are too largely dependent on the advice of manufacturers."

We are not acquainted with any giving such particulars, which, however, are usually contained in the illustrated trade lists and catalogues of the makers of such machinery. A most useful article on "Builders' Hoisting Gear" was specially contributed by Professor Adams, M.Inst.C.E., to the current issue of "Specification" (Technical Publications, Ltd., Caxton House, Westminster). In that article Scotch cranes and hoists are described, and there are valuable observations on lifting scaffold girders, bricks, and stone; derricks, jacks, and the jenny wheel; proportions and calculations for crab winches; tackle for lifting; lifting, lowering, moving heavy weights; differential pulleys; lifting jacks, the strength of and of wire ropes and of chains. Professor Adams states that a differential pulley is a very convenient means of lifting a heavy load for a short weight. It is a continuous hand-chain working on a cup-wheel or sprocket-wheel for lifting or lowering. The advantage arises from a light pull on the chain through a long distance being converted into a powerful force acting through a short distance. The multiplying power varies with the size of pulley-block. A 5-cwt. block has a multiplying power of 16 to 1 and an efficiency of 40 per cent.; a 10-cwt. block multiplies 30 to 1, with an efficiency of 30 per cent.; a 30-cwt. block multiplies 53 to 1, with an efficiency of 25 per cent. The meaning of these terms is that to lift a weight of 1 ft. it will be necessary to pull 53 ft. of the endless chain through the hands, and the force required to be applied to the chain will be  $\frac{1}{53} \times 112 = 2.11$  lb. Professor Adams's article in "Specification" is a remarkable example of the author's power of condensing much valuable information within a small space.

### Text-book on Surveying.

de V. G. (Tankerton) writes: "Please recommend an inexpensive but efficient text-book on surveying. I am told that surveying instruments soon lose their accuracy and that therefore it is unwise to buy second-hand."

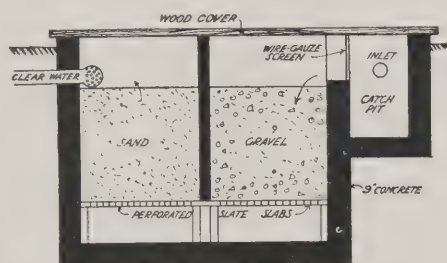
"Surveying and Surveying Instruments," by G. A. T. Middleton (price 5s. 6d.), published by Whittaker and Co., 2, White Hart Street, Paternoster Square, E.C., is now in its third edition, revised and enlarged, the author having had extensive practical experience in surveying, and is also a most successful "coach" on the subject, and being, moreover, a skilful writer, has exceptional qualifications for expounding the subject. Middleton has specially contributed to the current issue of "Specification" (Technical Publications, Ltd., Caxton House, Westminster) a very useful article on "Surveying Instruments and their Adjustment." No instrument, however carefully selected, will remain permanently accurate, but, with extreme care in handling,

the life of an instrument can be doubled without decreasing its duty. For this reason there is, of course, considerable risk in buying a second-hand instrument, and such a purchase should never be attempted without the assistance of an expert.

### Rainwater Purification.

NORVIC (Winchester) writes: "In a small house which has no proper water supply, the past inhabitants have always used rainwater, which is collected in two underground tanks quite close together. The down spouts have a gully arrangement at their foot, with a small settling tank, from which the water overflows to the drain-pipes leading to the storage tanks. The house is situated on the Downs, far away from any manufacturing place and four miles from a small county town. The soil is chalk. I should be glad to learn of any simple and inexpensive arrangements for purifying the water thus collected. I understand the water in the tanks is fairly pure."

—In the circumstances detailed, it is possible that the water supply as it stands is already satisfactory and that it will be sufficient to fit a good filter (such as the Berkefeld), where it is drawn off for drinking purposes. If, however, it is not considered sufficiently pure as it exists, a simple filter tank may be interposed between the catchpit and storage tanks as shown in the accompanying diagram. It will be seen that the water enters at the top of the coarse material and rises to the outlet through the finer material. The diagram is practically self-explanatory.



The filtering material requires cleansing from time to time. An automatic rainwater separator, which permits the first portion of any rainfall (carrying the dust and smuts which have accumulated on roofs and in gutters) to run to waste until a tipper is filled, which subsequently diverts the flow to the storage accommodation, is sometimes useful to exclude dirt from the tanks and filters. G.

### Cement Grout in Restoration and Construction.

P. G. H. (Herne Bay) writes: "I have read at various times in the Journal accounts of the successful employment of grouting, by means of the machine adopted by Sir Francis Fox, in several works of restoration, and I should be glad to know of any instances of the employment of grouting, with or without this machine, in important works of construction. I have a dim recollection that it was used in forming some of the Nile barges. Could you refer me to any description of the grouting in this particular work?"

—The grouting machine was invented by the late Mr. Greathead for use in the construction of the electric tube railways of London, and was adopted

by Mr. (now Sir) Francis Fox in several important works of preservation—notably the Saxon church at Corhampton; the Saxon tower of St. Mary, Bishop Hill, York; the ancient tower and walls at Chester; the "Auld Brig of Ayr"; the Bell Harry tower at Canterbury; and, above all, at Winchester Cathedral. A description of the machine was given in the "Architectural Review" of May, 1912, and in the Journal of May 15, 1912. For constructional work there seems to be but little need for the use of the machine, as pouring is practicable. A paper was read on March 15th, 1904, before the Institution of Civil Engineers, by Sir R. Hanbury Brown, on "The Use of Cement Grout at the Delta Barrage in Egypt." In constructing the subsidiary weirs below the Delta Barrage, the bed of the river was first dredged out to the form of the weir foundation-line. The core and footing walls were then made by the employment of cement grout, the core-wall in 20 ft. of water and the footing-wall in 10 ft. The walls were made in successive blocks, but as continuous masonry without break, by forming-boxes, carefully put together, along the wall alignment, the first box formed being a four-sided one and all subsequent boxes being three-sided, the last-formed block of masonry closing the fourth side. The box having been put together and lined with sacking to make it cement-grout tight, and having also been rigidly tied in position, was then filled with rubble of all sizes, after arranging perforated iron pipes along the axis of the box. When the box was full of stone to water-level, the cement grout was poured down the pipes in inner unperforated tubes, until the contained water had been displaced by the cement grout. Box and contents were then left alone till next morning, when, the cement having set, the box was taken to pieces, moved forward, and put together again to form the next block in the same way. A summary of Sir R. Hanbury Brown's paper was given in the Journal of March 23, 1904.

### Wellington's Formula for Pile-driving.

G. C. (Paddington) writes: "Can you enable me to trace Wellington's formula for drop-hammer pile-driving?"

—Wellington's formula is  $P = \frac{2wh}{s+1}$

where P = safe load in tons on pile; w, weight of hammer in tons; h, height in feet of free fall of hammer; s, penetration of pile at last blow, in inches.

### Builders and the Moratorium.

"Could you give any information with regard to architects' certificates issued just before and during the present crisis, as to whether the client can take advantage of the new Act? As you will realise, these certificates represent, for the most part, wages already paid out by the builder."

—A sufficient answer to this question will be found on p. 186 of our issue for September 9, under the heading "Builders and the Moratorium." It will there be seen that the National Federation of Building Trades Employers have expressed the desirability of excluding the building trade in case the moratorium is extended; or, if that course be impracticable, to allow the contractor to suspend the contract during the suspension of payment; any expenses consequent on such suspension to be chargeable against the contractor.



## PRICES, CONTRACTS, AND THE WAR.

[Specially Contributed.]

AT a special Council meeting of the Royal Institute of the Architects of Ireland, held on August 31, Mr. R. Caulfeild Orpen, president, in opening the proceedings, referred to the claim on all patriotic people to keep things going during the War, as only thus can the terrible results of the War be spared to the vast number of persons engaged as labourers and tradesmen in the building industry of Dublin. He said the Council welcomed the deputation which was present from the Dublin Building Trades Employers' Association as representatives of an organisation which he knew had the interests of the citizens very really at heart.

Mr. John Good, president of the Employers' Association, said that there were some ten to fifteen thousand workers in Dublin dependent on the building trade, and, taking the families of these to average four persons per household, we had the appalling prospect of from 40,000 to 60,000 destitute people in that city, should building contractors be compelled to close their works. Mr. Good said that, strange to say, there was no provision for "war risks" in any form of building contract at present in use in the United Kingdom, though many forms of contract, other than building contracts, contained such provision. His Association, in conjunction with the association in London to which they were allied, were at present taking steps to have the omission rectified. The object of the steps his Association were now taking was to prevent the undue inflation of prices. It might be reasonably contended that a contractor should be relieved of the liability to complete a contract undertaken at a time when the present circumstances could not have been, and in point of fact were not, anticipated by either party to the contract. Their Association had been, however, advised that nothing short of an Act of Parliament could relieve a contractor of the responsibility his contract involves; but he thought contractors might reasonably hope that, in finally settling accounts on the completion of existing contracts, a reasonable and sympathetic attitude should be taken by all parties concerned. What the risk involved may mean Mr. Good instanced by noting the sudden rise in sugar. Three weeks ago the price stood at 15s. per cwt.; it is now 55s. to 60s. That is, in three weeks the price had jumped 300 per cent. Such a jump in cost, should it occur in a building material largely used in an important contract, would probably involve the contractor in bankruptcy. The cost of building materials has not yet shown any such serious rise, but lead, which three weeks before was 22s. 6d. per cwt., was then 29s. 6d., a rise of 30 per cent. on the raw material. Before passing from existing contracts he wished to note that it is not the intention of the Association to ask for the assistance of Parliament as regards these. What they had to face was the setting up of some arrangement which would enable new work to be started and new contracts entered into, and he felt sure that his Association would have the sympathy and active help of the architects of Dublin in the problem they all had to face. His Association, after consultation with their

law agent and counsel, proposed to attach the following slip to all new tenders made during the present European crisis:

*"European Crisis."*

"This tender is submitted on the express condition (which condition shall be embodied in any form of contract subsequently drawn up) that if the prices or cost of any material or labour necessary for or essential to any part of the work advance or be reduced by more than 5 per cent. over or under the rates of the date current, the schedule of prices for such shall be correspondingly increased or reduced and/or the contract amended accordingly."

The Association had given much consideration to the method by which the market price of material "at the date current" could be fixed. A committee had been appointed whose duty it would be to meet week by week and to draw up a schedule of prices for each week. This schedule would be posted and retained in the offices of the Association, and so a record of the cost of material could be ascertained at any time. At the closing up of a building account the contractor would have to produce vouchers showing the date of his purchase of material, and his charge could thus be verified and checked.

Mr. Good went on to say that the committee already formed contained representatives of all the trades embraced by the Dublin Building Trades Employers' Association and of leading members of the builders' merchants. He further hoped that the Institute would nominate representatives of the architectural profession in Dublin. They were most anxious that the Committee should be thoroughly representative.

Mr. R. Gamble, president of the Dublin Chamber of Commerce, said that the position the Dublin Master Builders take up is that they cannot undertake in new contracts the risks involved by the war. It is a builder's practice to enquire from the merchant the cost of material when framing his estimate. The merchant cannot under present circumstances quote a price. He thought the proposals put forward by the Association manifestly just. These proposals had his entire concurrence. In reference to what Mr. Good had said in regard to the rise in the price of lead, he was glad to be able to report that it had that day fallen 30s. per ton.

Mr. Batchelor asked if Belfast builders had taken any similar action.

Mr. McLoughlin had no knowledge of any such action, but they had been informed of the line the Dublin builders were adopting. His Association had dealt directly with the London Association, which were in close touch with the Board of Trade. Their own Dublin branch had been before the Local Government Board and had been sympathetically received.

Mr. Kaye-Parry said he regretted to have to refer to a case where a contractor had demanded an increase of 23 per cent. on his estimate. The estimate was submitted before the war, but was not actually accepted till after war had been declared. In another case a contractor repudiated his contract, stating that the rise in price was prohibitive. On enquiry being made, the manufacturer undertook to supply

the material at the price originally quoted. He protested against any endeavour to make capital out of the war, of course realised that cases such as mentioned may find excuse in a panic.

Mr. Batchelor said that at present the contractor was responsible for the upsurge in the building on which he was engaged. He did not see that any provision made for relieving a contractor of liability in case of siege or bombardment.

Mr. Good replied that he hoped consideration would be embodied in a new contract clause to which he referred.

Mr. Millar, having the client's aspect during the present crisis in view, at a time—a long or a short contract—did not modify the situation. He was anxious to know what provision would be made as to fixing the date of purchase of material. Mr. Good replied that the reference to the placing of an order, the most advantageous moment in the interest of the building owner it was very difficult to lay down a rule. "We want to," said Mr. Good, "creating a panic by crowding in orders and forcing up prices." In regard to what Mr. Kaye-Parry had said, he (Mr. Good) had had letters in his office from manufacturers withdrawing all former price lists, declining to quote prices for materials to be supplied in the future.

Mr. McLoughlin mentioned a large firm, who, he alleged, had raised their prices to a prohibitive figure, although not stocked. The action of this firm was under consideration by Parliament.

Mr. Gamble reiterated his statement that a contractor cannot get guaranteed the next twelve or eighteen months any merchant.

Mr. Kaye-Parry said he wished to see the merchants ready to take risks as they are compelled to do.

Mr. George Ashlin suggested that contractors might obtain protection from insurance companies.

Mr. Kaye-Parry asked Mr. Good if the terms of the proposed "slip" were enforceable at the close of the war. He suggested also that there might be a schedule drawn up showing the materials most likely to be affected in price. Such a list would be very valuable for laying before persons intending to build. Mr. Kaye-Parry said it to be widely known that architects were most anxious to assist builders in framing contracts under them by substituting, say, Canadian for Baltic timber, in cases where the price of specified materials had risen excessively.

Mr. Millar suggested the omission of the words "and labour" from the proposed "slip."

Mr. Owen pointed out that the reference to labour in the "slip" might be a source of hands of contractors in case of a strike.

The deputation then withdrew, and the Council proceeded to discuss the proposals submitted by the Association.

Mr. Batchelor proposed, Mr. Kaye-Parry seconded, and the Council unanimously resolved:

"That the Council having considered the proposal submitted by the Dublin Building Trades Employers' Association, agree that the said proposal



and equitable one under the circumstances. They would, however, strongly recommend the Association to remove the words 'and labour' from the title, as they consider that the point of discussion should be harrowed as far as possible in order that the builder may be induced to undertake the work during the continuation of the war.

George Sheridan proposed, Mr. L. J. O'Connell seconded, and the Council unanimously approved the following resolution:

That as on the standing committee report for the preparation of a schedule of building materials from week to week there are already representatives of the building trade, builders' merchants, and the architectural profession, this Committee is of opinion that it would be desirable to add to the committee representatives from the Local Government and the Board of Public Works in the interests of the general public."

It was proposed by Mr. C. A. Owen, seconded by Mr. George O'Connor, and unanimously: "That Mr. R. Caulfield, president, R.I.A.I., Mr. W. J. Barry, vice-president, and Mr. J. H. Batchelor, past-president, be invited to act on the Standing Committee for fixing market rates during the crisis."

## BRITISH STANDARD SPECIFICATIONS FOR CEILING ROSES AND UNIONS.

The Engineering Standards Committee has issued the two following reports: (1) British Standard Specification for Two Piece Ceiling Roses; (2) British Standard Specification for Copper-Alloy Ceiling Piece Unions for Low and Medium Pressure British Standard Screwed Copper (Primarily for Domestic and Similar Work).

The former report will be welcomed by those interested in the production or use of ceiling accessories, particularly now that attention is being paid to the production of goods hitherto imported. The report explains that the standardisation of ceiling three-pin plugs and other accessories is being proceeded with, but it was not the convenience of those concerned that best be met by issuing separate specifications, so as to bring the standardisation into force as soon as possible.

The desirability, on the score of safety and convenience, of being able to replace a damaged fitting or cover, cannot be put, and this, it is hoped, will be rendered possible by the adoption of this standard without unduly hampering the design of these fittings. The report gives particulars of the material to be used, the dimensions of all the essential parts, the sizes and shapes of the holes for screws, and all other necessary details.

The unions dealt with in the second report are intended for use with Tables I and II of the British Standard Specification for Copper Tubes (Primarily for Domestic and Similar Work) Report, No. 10, which was issued in 1913.

The above-mentioned reports may be obtained, price 5s. 2d., post free, from any bookseller, or direct from the offices of the Committee, 28, Victoria Street, Westminster. They are published for the Committee by Messrs. Crosby Lockwood & Son, 7, Stationers' Hall Court, E.C.4, Broadway, Westminster.

## THE WAR AND TIMBER IMPORTATION.

For the following valuable communication upon this important subject we are indebted to Mr. J. H. Kerner-Greenwood, of the well-known firm of timber importers and builders' merchants, King's Lynn:

"Whilst confirming the remarks made in your Editorial Notes of the 2nd inst. as to the impossibility of knowing to what extent building materials are likely to be affected by the war, and the consequent impossibility of architects to tell their clients even approximately what a building will cost, I would draw the attention of architects and builders to the fact that the Swedish Foreign Office informed the Swedish Ship-owners on the 21st ult. that, according to advices now received from the Swedish Minister in Berlin, Germany had been pleased to declare deals, battens, boards, staves, and packing-caseboards to be non-contraband of war.

"This attitude of Germany is quite understandable, because she is extremely desirous of keeping friends with Sweden. The result has been that many new charters have been fixed up and ship-brokers are again trying to obtain offers. Owners are willing to risk their boats in the Baltic, the risk, of course, being from floating mines. Seven or eight boats during the last week have been chartered, and altogether trade is making great efforts to get going again.

"I ought to have said that the timber must be carried in neutral bottoms (*i.e.*, in neutral ships), but there is no difficulty in that.

"It is still impossible to take timber from Finland because she is Russian, so that as some of our best joiners' deals come from Finland the better-class timbers will still be high in price, especially as there is difficulty in loading from the White Sea on account of the shortage of labour, the conscripts having been called into active service.

"At the commencement of the war Russia prohibited the exportation of timber, but she removed this prohibition very soon after it was made. The difficulty is now with the loading.

"A friend of mine sent a boat out at the commencement of the war, but it was returned empty because of the prohibition. He had twelve thousand pounds worth of Archangel deals and boards on order which would have been very profitable to him during the coming winter, but he told me that he had since cancelled the order because of the difficulties of loading. If it could not be loaded before the White Sea was frozen (and the White Sea ports close earlier than any other timber-exporting ports) he was afraid that they might take fire before they could be loaded per "first open water" in the spring. They have frequent fires in Archangel on account of the tremendous quantities of timber stocked there, and the difficulty would be for him to prove that it was not his timber that got on fire. It is a very difficult thing to prove after a fire that it is or is not your timber that has been burnt, because there are thousands of other stocks of exactly the same size all piled together.

"It seems to me that the position is that we shall be able to take no Finnish and very little Archangel timber, while if timber goes very much higher during the war American spruce and cheap pitch pine will have to take the place of deal. The

bright gleam of sunshine is the exportation of Swedish timber.

"J. H. KERNER-GREENWOOD.

"P.S.—Since writing the above I have received information from a very reliable source stating that Finland has shipped about two-thirds of her normal output, so that the total reduction on shipments from Finnish and Swedish ports will not be a very important matter in view of the fact that the consumption on this side during the war will also be very much less than usual."

## HOSPITALS DURING THE WAR.

To the current issue of "Kahncrete Engineering" Mr. William Black contributes an interesting article on the subject of hospitals in time of war. The writer makes the practical suggestion that the existing machinery of the National Insurance Act shall be used to conserve and augment the resources of the State and of the Red Cross Societies. Moneys are the sinews of war, and they must be economically and fruitfully used. Hospitals are needed, and public authorities under the National Insurance Act are standing ready to construct if they get the word. Mr. Black suggests a means of spending public money wisely by hurrying forward the building of permanent consumption hospitals, using them for war purposes until the war is ended, and then applying them to their designed purposes at the conclusion of the war. By this device money would be saved from the makeshift expedients of fitting up temporary hospitals and country houses, and would be devoted to a really permanent purpose. The proprietors of "Kahncrete Engineering" will be glad to send copies of their current issue gratis to any readers who would like to investigate the matter further. The address of publication is Caxton House, Westminster.

## ARCHITECTS WITH THE COLOURS.

As announced in last week's issue, the Editors of THE ARCHITECTS' AND BUILDERS' JOURNAL will be glad to publish the names of architects and architects' assistants who are serving with the Regular and Territorial Forces. We learn this week that Mr. Robert W. Pite, eldest son of Mr. William A. Pite, F.R.I.B.A., has enlisted in the Royal Engineers. From Mr. Ellis T. Cook, Licentiate R.I.B.A., we have received the following interesting communication:

"In answer to your invitation, I have pleasure in giving you a few instances of architects and assistants who are serving with the colours: (1) *Major F. E. Knight*, an architect in practice at 11, Westgate, Rotherham, commanding officer of the Rotherham (Headquarter) Companies of the 5th Battalion York and Lancaster Regiment (Territorials), Fellow of the Sheffield Society of Architects and Surveyors. At present in camp at Sandbeck Park, near Rotherham and Doncaster. (2) *Captain E. Holsworth Walker*, A.R.I.B.A., an architect in practice in Doncaster. With the Doncaster Territorials. (3) *Arnold Lowcock*, A.R.I.B.A., Poplar House, Downfield, an assistant in the office of Major J. E. Knight, architect, Rotherham. Enlisted as a gunner in the Royal Field Artillery. At present in training in Newcastle."

Further instances will be welcome



## TRADE AND CRAFT.

*Hospital Stoves.*

The Doncaster and Mexborough Joint Isolation Hospital is being supplied with double-fronted warm-air ventilating patent Manchester hospital stoves, by Messrs. E. H. Shorland and Brother, Ltd., of Failsworth, Manchester.

*Asphalte for Roofs.*

Claridge's asphalte is being used on the roofs of the new County Hall, Northallerton, and Sledmere Hall, near Malton.

The same material is being used on the roofs of Preshaw House, Upham, Hants, and Great Oaks, Goring Heath, under the instructions of Messrs. Crickmay and Sons and Mr. F. L. Pearson respectively.

*"Pudlo" in Various Applications.*

All the concrete floors in the basement of the Nurses' Home, South Manchester Guardians, Withington, have been treated with Pudlo to prevent rising dampness. Flat roofs over the additions to the offices of the South Manchester Guardians, Withington, have been waterproofed throughout with Pudlo.

We are informed that the bottom of the new bath at the Kendal Grammar School has been treated with the powder Pudlo (to make the cement waterproof) and that the architect reports a very excellent result.

*Holophane Glassware.*

In connection with the stop which has been put to the importation of Continental-made glassware, we are asked to state that Holophane prismatic glass for reflectors is made in this country. The extensive works of the Holophane Company at Gateshead are well equipped for dealing with any demands which may be made upon them, and it is not anticipated that any difficulty will arise in regard to supplies of raw material. For these reasons the prices of Holophane glassware will remain as before.

## OBITUARY.

*Mr. W. H. D. Horsfall.*

The death has occurred, at his residence, Heath Mount, of Mr. Wm. Hy. Dodgson Horsfall, aged seventy-one. He had not been well for some little time, but it was not until a week ago that he became seriously ill. A native of Halifax, he served his articles as architect and surveyor with the late Mr. R. Horsfall, and started to practise on his own account soon after the completion of his indentures. Among the local buildings he designed and superintended during construction were the corporation's electricity works, the gas offices, Alderman Pinder's shops at the junction of Russel Street and Union Street, Sowerby Bridge Baptist Church, Soyland Methodist New Connexion Church, Stone Trough Brewery, and the new Plummet Line and Sportsman Hotels. He had acted as consulting surveyor to the Southowram District Council for a number of years.

Amidst his professional duties, Mr. Horsfall found time, in the more vigorous years of his life, to render useful public service for the ratepayers both on the Halifax Town Council and the Halifax Board of Guardians. He joined the Town Council, as one of the representatives for East Ward, in 1866, and he remained a member until 1872. In 1881 he was re-

elected, continuing as a member until 1891. Altogether, therefore, he was on the council for sixteen years, and the esteem and admiration he won among his colleagues was demonstrated by their electing him alderman. On the Board of Guardians, too, he served for several years, and was honoured in 1880 by being elected as chairman.

## NEWS ITEMS.

*Bridge, Nuneaton.*

The Warwickshire County Council are to build a new bridge over the Coventry Canal in Bedworth Road, Bulkington, near Nuneaton, at a cost of upwards of £1,000.

*Improvements, Dublin.*

The Dublin Corporation have instructed their surveyor to prepare plans and estimates for the construction of a new sea wall at Clontarf. Chatham Row, Dublin, is to be widened at a cost of £2,664.

*New Wards, Newcastle Infirmary.*

Two new temporary wards are being erected at the rear of the Royal Victoria Infirmary, Newcastle. The infirmary is now ready for the reception of wounded, it having been incorporated in the Northern General Hospital, of which Armstrong College forms the headquarters.

*Houses, Blaydon, Northumberland.*

An extensive building scheme has been formulated by the Blaydon Council. It is proposed to erect 400 working-class dwellings in various parts of the district, at an estimated cost of about £100,000. The Council have asked the Local Government Board if they would be prepared to give a grant towards the scheme.

*New Wash-Baths, Manchester.*

New wash-baths and a public wash-house in New Quay Street, Manchester, have just been opened. The buildings contain sixteen wash-baths, nine for males and seven for females. The washhouse and laundry has sixteen washing stalls and sixteen drying houses, hydro extractors, two steam-driven mangles, and all the up-to-date equipment of a modern laundry and wash-baths. Special provision is made for the free bathing of school children.

*Competitions Illustrated.*

To the series of illustrated brochures entitled "British Competitions in Architecture" two further competitions have now been added, namely, Bradford Town-Planning and Belfast Art Gallery and Museum. Each is well and fully illustrated, several designs in addition to those premiated being shown. The brochures, printed on art paper, are issued, price 2s. 6d. and 4s. net respectively, by Messrs. Alex. Koch and Sons, of 44, Doughty Street, London, W.C.

*London's Aspect at Night.*

In consequence of the order to suppress all unnecessary lights during the war London at night-time presents a most peculiar appearance. At least half the lights along the main thoroughfares and principal squares remain unlit, and all the illuminated advertisements and sky signs have disappeared. Even Big Ben has been put out! As if to make some recompense for all this gloom, a powerful searchlight, fixed to the roof of Charing Cross Station, now sweeps the sky, its long radiating arm of light being clearly distinguishable from the outer suburbs.

*Improvement Schemes, Portrush.*

At a special meeting of Portrush Urban Council designs were submitted of the proposed new town hall, public baths, technical school, and public conveniences. Two estimates of the cost of the work were submitted, as follows: (1) Town hall, £7,000; technical school, out furnishings or fittings, £1,350; underground conveniences, £950; baths, £33 total, £12,550. (2) Town hall, £10,000; technical school, not including fittings, £3,500; baths, including fittings, £33 total, £17,140.

*Leith's King Edward Memorial.*

Leith's memorial to King Edward, which was unveiled by Lord Glenconner, was erected on a prominent site in Victoria Park, near the entrance in Newmarket Road. It is of bronze, and shows the monarch in the robes of a Knight of Thistle. The pedestal, of Classic design, made of white Kemnay granite and standing 12 ft. high. The bronze figure is 8 ft. high, making the total height of the memorial 20 ft. A handsome entrance gate to the park is being erected near the site by the Town Council. Mr. J. S. Rhind, Edinburgh, is the sculptor.

*Building Schemes, Liverpool.*

In order to mitigate unemployment in Liverpool the Housing Committee of the Corporation have decided to ask immediately for tenders for the rebuilding schemes to which they are pledged in Gore Street, Jordan Street, and Spa Street areas. Sanction for the expenditure of about £25,000 on these schemes has already been obtained. The committee further instructed the surveyor to facilitate the acquirement of the remaining necessary for the carrying out of the projected schemes in the following: a Prince Edwin Street, Mason Street, Blenheim Street, Rathbone Street, Blenheim Street, Saltney Street, and Dublin Street extension. These schemes will entail an approximate outlay for building of £120,000.

## ARCHITECTS AND THE WORKS CONTRACTS IN HAND.

A number of leading architects, from patriotic motives, have been good enough to supply us with information concerning their current and projected contracts. The list already published may be added the following:

*Mr. Arthur Hill, B.E., M.R.I.B.A. (Cork):*  
Munster and Leinster Bank. £35,000 (T. Sisk and Son, builders).  
Dence, Castletownshend, co. Cork, £10,000 (T. Sisk and Son, builders).  
National Bank, Newtownbarry (£1,000).  
Infirmary, Cork, £2,700 (T. Deane, builder).

*Messrs. Garside and Pennin (Pontefract and Castleford):*

Fifty-six dwelling houses, South Kirkby; 60 dwelling-houses, Fitzwilliam, Huddersfield; shop, South Elmsall; new Wesleyan chapel and school, Grimsby; Wesleyan chapel and school, Allerton Bywater; bakery and two villas, Castleford; 10 houses, Fryston; 130 houses, Castleford Housing Scheme; 300 houses, Bolton Urban District Council Housing Scheme; two villas, Carleton; alterations to shops; Cartners Arms, bank, and cottages, Pontefract, and erection of two villas, shops, nurses' home, general post-office, motor garage, eight houses, etc., all at Pontefract; sewers, roads, and drainage work at South Kirkby and Hemsworth.



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## ELECTRICAL NOTES.

*B.T.H. "Eye-Rest" Wall Brackets.*

The "Eye-Rest" system of electric illumination introduced by the British Thomson-Houston Company, Ltd., some years ago, is so well known that it is quite unnecessary to describe it in detail when referring to its latest application. This takes the form of ornamental wall brackets for indirect lighting. Many people, who fully admit the merits of this form of lighting, have hesitated to adopt it because, in spite of its obvious advantages over other systems in the matter of light diffusion and elimination of glare, it involved the use of ceiling fittings. This new development should therefore increase the vogue of indirect lighting, because the system can now be extended to those who prefer brackets to ceiling fittings. Necessarily, these, in order to be effective, will have to be used on white walls, but to many people this will be preferable to interfering with the appearance of elaborate ceilings.

A number of patterns are available of the B.T.H. "Eye-Rest" wall bracket—in metal and composition—and it is claimed that these fittings represent an exceedingly beautiful application of the indirect principle. Each flambeau of a one-light, two-light, or three-light bracket is fitted with a small X-ray reflector and a 40-watt Mazda drawn-wire lamp, and the light is thrown up in the same way as with the ordinary "Eye-Rest" bowl fitting. The lamps and reflectors are, of course, invisible from the ground. These brackets are made in several period designs with one, two, or three arms.

*Trading with the Enemy.*

Perhaps no trade has been so much affected by the Royal Proclamation on this subject as the electrical trade. Not only are the trade journals full of leading articles and correspondence on the matter, but it is on everybody's lips and a topic of general conversation wherever electrical men meet. The reason is that, perhaps, no trade has been so cut into or captured by the Germans as the British electrical trade, and the allegations which have been made by an evening paper have come as a tremendous surprise, even to many in the trade itself. It was always known that certain firms were avowed agents of German works, and that others were importing large quantities of German electrical materials. But it was not known that so many companies manufacturing in Great Britain were controlled as to finance and partly as to organisation from Germany, or had working arrangements with German manufacturers. Questions have been asked in the House of Commons on the subject, and letters have been written to the papers by Members of Parliament.

Now, it is very easy to take up a militant attitude on the subject and it is quite right to be patriotic, but one must try to avoid "seeing red," and an attempt should be made to adopt a proper perspective in regard to these matters. It must not be forgotten that the Patent Act of 1907 was a distinct invitation to foreigners to build works over here and to sink their capital in British works. Naturally, in addition to the political point of view or advantage which was hoped to be gained, and for which their Government gave them every support, they also looked for dividends. Another thing is that the lack of initiative of British manufacturers and the want of support by our own Government and banks was a further direct incitement to the Germans to establish themselves here. Let it also not be forgotten that Americans have done likewise, although in their case there was no Government or Bank support, but pure personal enterprise.

It is obvious that the proper thing to do is not to force genuine manufacturing concerns to shut down and thus to put out of work some thousands of British workers, but to take steps to see that no money leaves the country now, and if possible to acquire the works for ourselves after the war. If the workers were thrown out of employment there are not enough purely British works to take them on, especially at present, when many are working reduced hours. We therefore consider as somewhat hasty and ill-advised the action of the British Electrical and Allied Manufacturers' Association, in inviting members, the controlling interest of whose share capital is held by alien enemies, to resign their membership, and also that other members of the Association are advised not to buy from or sell to such firms.

This sudden awakening of British manufacturers is better late than never, but it ought not to have needed the stimulus of a great war. It is very apparent that in commerce as in other matters we have, as a nation, taken matters much too easy, and have allowed many important industries to slip through our fingers. Now that we have an opportunity of rectifying this serious error, we must remain more keenly alert for business opportunities that we ought to have sought out instead of waiting for them to be thrust upon us.



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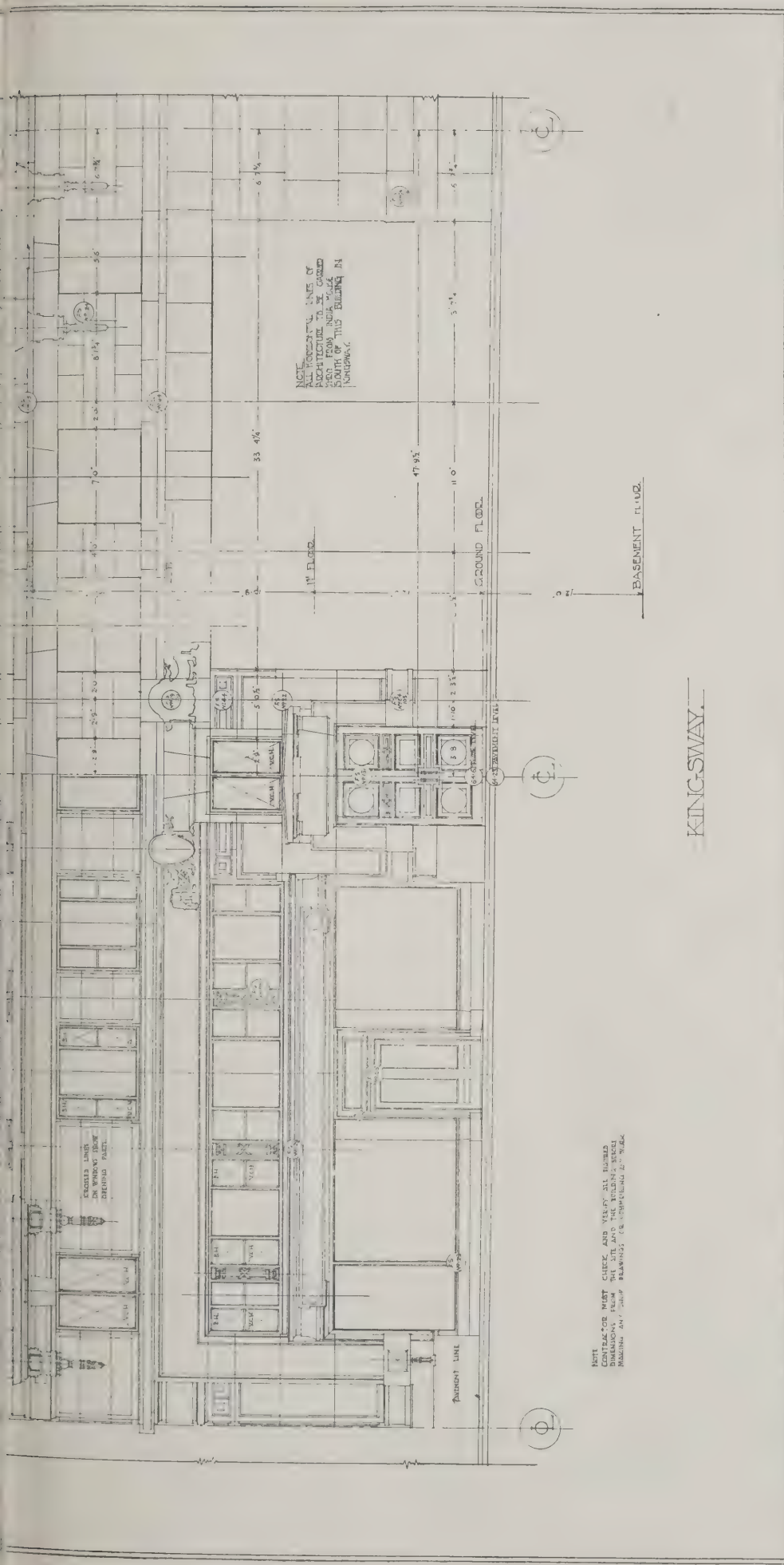


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TREHEARNE & NORMAN ARCHITECTS.  
57 LINCOLN INN FIELDS, W.C.

FRONT ELEVATION.  
CANADA HOUSE KINGSWAY, W.C.

SCALE 1/4" = 1'-0"  
DATE: 11/2/14 BY P.L.  
PLACED APPL. BY E.C.

WORKING DRAWINGS BY WELL-KNOWN ARCHITECTS (NEW SERIES). XXXVII.- CANADA HOUSE, KINGSWAY, LONDON: FRONT ELEVATION.  
TREHEARNE AND NORMAN, ARCHITECTS.



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NINETEENTH-CENTURY FRENCH ARCHITECTURE. IV.—THE OPERA HOUSE, PARIS: DETAIL OF SIDE ELEVATION.  
CHARLES GARNIER, ARCHITECT.







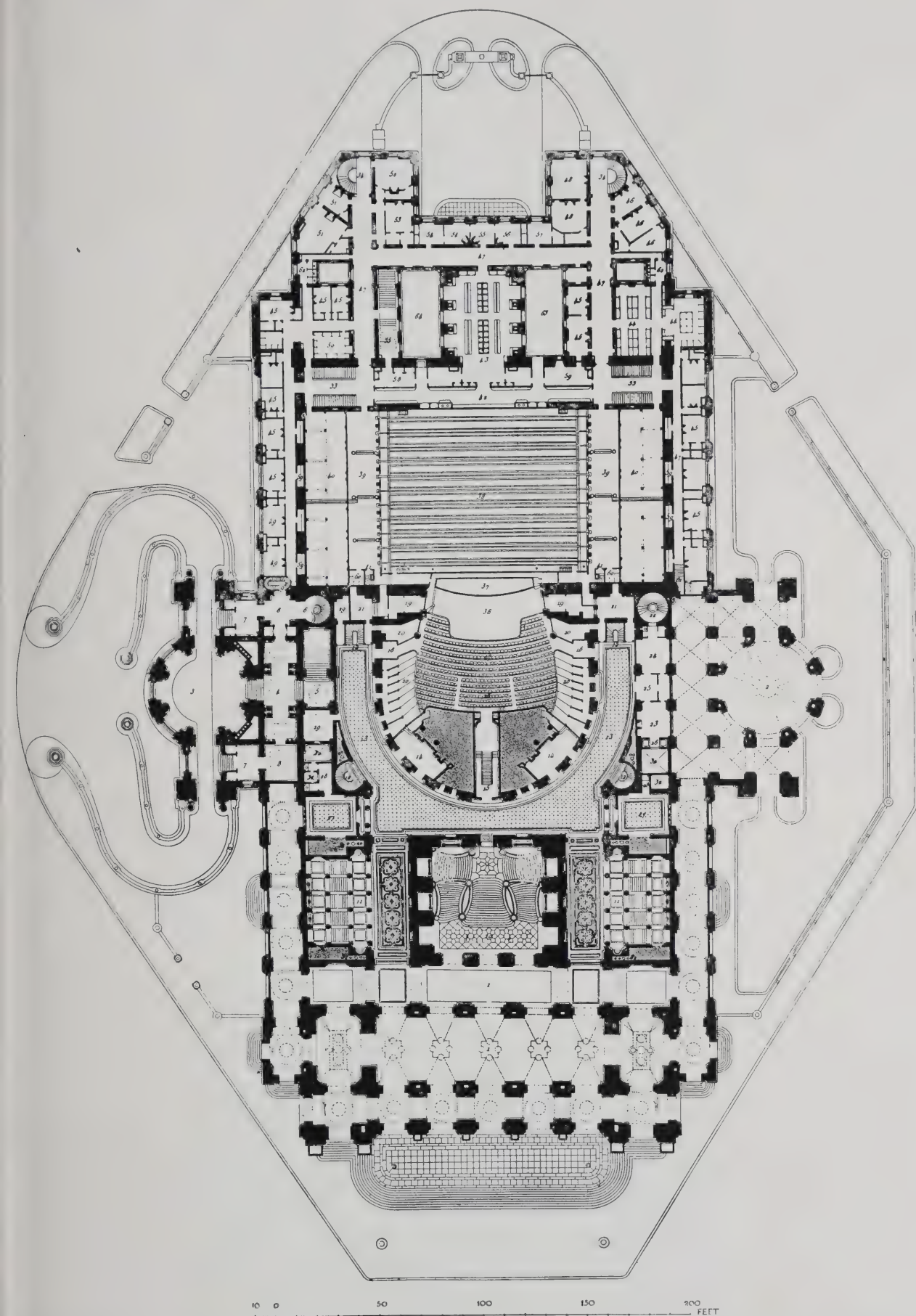


NINETEENTH-CENTURY FRENCH ARCHITECTURE. V.—THE OPERA HOUSE, PARIS: DETAIL OF SIDE ELEVATION.  
CHARLES GARNIER, ARCHITECT.









1, Public Vestibule, leading to Grand Staircase; 2, Public Carriage Entrance; 3, State Entrance; 4, Grand Vestibule; 5, Grand State Staircase; 11, Side Staircases; 13, Corridor to Stalls; 15, Parterre Staircase; 19, 20, Boxes; 35, Principal Stage Staircase; 36, Orchestra; 37, Footlights; 38, Stage; 39, Wings; 40, Make-up Boxes; 43, Supers' Room; 44, Property Rooms; 45, Chorus Rooms; 49, Principals of Chorus.

NINETEENTH-CENTURY FRENCH ARCHITECTURE. VI.—THE OPERA HOUSE, PARIS: PLAN AT GROUND-FLOOR LEVEL.

CHARLES GARNIER, ARCHITECT.









STUDENTS' DRAWINGS. XXXII.—ALTAR AND VASE.

BY A. RECOUVER (PRIX DE ROME).

(Reproduced by courtesy of The Massachusetts Institute of Technology.)









MODERN DOMESTIC ARCHITECTURE. XXXVI.—ADDITIONS TO REDISHAM HALL, BECCLES, SUFFOLK.

H. M. FLETCHER, F.R.I.B.A., ARCHITECT.









CURRENT ARCHITECTURE. LXXXI.—CANADA HOUSE, KINGSWAY, LONDON.

TREHEARNE AND NORMAN, ARCHITECTS.







# THE ARCHITECTS' & BUILDERS' JOURNAL.

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(From Piranesi.)



# THE ARCHITECTS' & BUILDERS' JOURNAL.

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CAXTON HOUSE, WESTMINSTER.

VOLUME 40. No. 1029

## EDITORIAL.

IT must be confessed that the correspondence (reproduced on p. 206 of the present issue) between the Architects' War Committee and the Government does not inspire confidence that much will come of it. To a perfunctory-looking and vaguely indefinite if patriotic offer of service the Government make a polite and equally perfunctory reply; and if the matter is allowed to rest at that, the profession will be greatly disappointed and disheartened, not to say incensed. Nor will its wrath be mainly visited upon the Government, who could not have been expected to regard as anything more than an academic expression of patriotism a letter containing such an inept paragraph as this: "It is felt that the Imperial Government is best able to indicate what form of assistance would be of most value to it, and the committee would welcome any suggestion from the Government in this direction."

Now, while it is very certain that the committee were making a genuine and sincere offer of assistance, this impression is not very prominently conveyed by the paragraph we have quoted, and Mr. Pease may be easily excused if he failed to take the offer very seriously. That the committee are in dead earnest he should be at once assured by a repetition of the offer, accompanied by a practical and businesslike statement of what the committee are really prepared to do. It must have struck him that if the architects were reluctant to define the nature of the services they were able and willing to place at his disposal all that could be expected of him was a courteous acknowledgment of a dutiful but sterile offer. No doubt the War Committee will hasten to undeceive him on this point. They should ask him to receive a deputation that would specify to him definitely and categorically exactly what work the architects are prepared to undertake, and that would leave him in no misapprehension as to their motives in making the offer. Mr. Pease's letter does not forbid them to try again.

What are the War Committee doing with respect to the vital matter of prices? It has not yet been announced that the R.I.B.A. Council or the War Committee have put forward any suggestion alternative to that submitted by the Institute of Builders, and disapproved by the R.I.B.A., and, in the absence of guidance from head-quarters, individual architects, and certain organisations of architects or of builders, are taking the matter into their own hands, as we recorded in our issue of September 16, when we gave the additional conditions of contract prepared and acted upon by Messrs. C. Harrison Townsend and C. H. B. Quennell, as well as the saving clause devised independently by the Dublin Building Trade Employers' Association and approved by the Royal Institute of the Architects of Ireland. We should have been more gratified if the R.I.B.A. had taken the

initiative. We understand, however, that the War Committee have the matter in hand, and that the results of their deliberations will shortly be known.

Modification of the conditions of contract, however, is only one phase of the problem of prices. The control or regulation of the prices of material is a matter with which the Government alone cannot effectually deal, it is one in which the Architects' War Committee might and ought to render invaluable assistance by collecting and sifting the available data, and making out a clear case upon which the Government could take action. If it is necessary to protect the builder by providing in the contract for fluctuations of price, it becomes doubly necessary to reassure the builder's owner that in putting his contract in hand he is not committing himself to unknown increment of expense. It has been objected that prices, being subject to economic conditions, cannot be authoritatively and effectively controlled. If, for instance, we are to deal with the difficulties and risks attendant on the shipment of timber cause the exporter and the shipper to raise their prices, timber must necessarily cost more to the buyer. The vendors demand a legitimate profit; if they cannot get it they will not sell. They will not do business at a loss. That is a sufficiently plain theory, but it takes no account of such disturbing factors as greed, panic, and the rigging of the market. It is possible for the Government to prevent artificial and unnecessary inflation of prices, and the Architects' War Committee could surely render signal service by helping them to do it. The knowledge that timber is being properly done should go far towards restoring public confidence and thus make for a general revival of building. At the moment of writing it may be presumed that the Government are about to take effectually with this question of prices; and it has already been announced that merchants who are hoarding, for instance, large stocks of timber that were bought when prices were on a peace basis will be compelled to sell at reasonable rates unless they prefer to see their stock confiscated.

Evidently the technical institute authorities are determined to carry on "business as usual," and, indeed, to expand as far as circumstances permit. In the annual prospectuses of such institutions that is now pouring upon us, there is in several instances an accompanying letter urging the increased importance that technical education assumes in consequence of the war. This is always merely a vague general proposition. In the prospectus of the Northampton Polytechnic Institute, London, E.C., for example, special reference is made to courses of lectures on aeronautics, a subject that has suddenly sprung into first-class importance.



what has aëronautics to do with architecture? From recent apparitions on the roofs of important buildings in London and elsewhere, elementary course in aëronautics will soon be available to the equipment of "the compleat architect." Without giving away any secrets, it is pertinent to note that many tall buildings have been, or are, supplied with the means of giving hostile forces a very warm reception; and it therefore seems evident that in the design of future tall buildings, necessity will be taken into account, and will necessitate considerable modifications in both design and construction. An outlook tower, with its platform for guns and for searchlight apparatus, as well as for the men who work these engines, and with provision for wireless installation, will be henceforth available for buildings occupying salient positions.

It will be interesting to know to what extent the natural and technical schools will be affected by the withdrawal of so many young men for military service at the age for which—17 to 25, or 19 to 35—corresponds pretty closely with the student period. It would therefore be suggested that, in view of an almost total shortage—for it may be taken for granted that able-bodied young men who are not myopic are liable to don the khaki—the age of admission to institutions should be at once reduced by a year—say to fifteen—and that recruits for education should be obtained from the day-schools by systematic selection, head-masters being asked to co-operate in the selection. Such a systematic search for promising pupils should have been in operation years ago, and the present crisis may chance to bring about that co-ordination of educational units, interests, and aims, of which the necessity has long been clearly felt. A conference of educational authorities should be immediately convened, with the object not only of meeting the emergency which seems certain with respect to the supply of students, but of dealing with the whole subject in the light of the changed conditions.

We are to get a firm grasp of the opportunities which Germany relinquished when she committed political suicide, we must make haste to reorganise our industrial system, and, in particular, to revolutionise education, professional, technical, commercial, and general, upon a sound business basis. As to the much-vaunted superiority of German technical education and business methods, it may be safely said that these essays in practical economics were not followed by the Germans from their superior intelligence—a quality for which their nation has been vastly praised—but were forced upon the country as a result of the case. Germany was simply compelled by economic conditions to make the thriftiest use of every possible expedient; and it may be that in order to hold on to the business which Germany has lost in the war at gamble, we shall have to get into the knack of cheaper production and of that more flexible and accommodating service which enabled her to do so large an export trade in—for example—such supplies as glass, brassware, gas-lamp-globes, electrical fittings, sanitary goods, and varnishes, cement, and building materials generally. This obviously is a matter in which altered methods of education can render us no immediate help. At the moment, motherwit must serve our turn. Our country cannot afford to wait until their clerks, artisans, and commercial experts have been educated up to the standards. Immediate action must be taken to secure by competitive methods the fresh accession of trade, which will certainly not gravitate to our shores as by a natural process. Our American cousins, past-masters of the art, are in all the arts of advertising, will do their utmost to get the lion's share of the spoils, and our own

traders, unless they want to see the German trade annexed by the United States, must be by no means less alert and enterprising.

A correspondent draws our attention to an abuse which we had anticipated when the Local Government Board issued their model plans for working-class dwellings, of which we published examples in our issue of May 14, 1913. In sending us a newspaper cutting in which "builders are invited by Bromyard U.D.C. to submit . . . plans and specifications for a row of four cottages to be erected at a total cost of £600, the arrangement to follow somewhat on the basis of the plans issued in the Memorandum of the Local Government Board dated March 25, 1913," our correspondent comments that he "does not see where the architect comes in." Apparently he is ignored, and although with respect to these four cottages this is no great matter in itself, it sets up a vicious practice which will be widely followed unless organised architects make a vigorous protest against it. When a Government Department issues plans intended merely for general guidance, they should be accompanied by an explicit statement that a properly qualified architect should in every instance be employed to design and superintend the actual work. It is no doubt useful to publish such plans, but surely it was never contemplated that a mean advantage would be taken of them to eliminate the architect. It might have been foreseen, however, that this temptation would operate very strongly on weak local authorities, who should certainly be put under constraint to follow the only safe and proper practice in building. This is a point on which organised architects might very legitimately—and, indeed, much more in the public interest than in their own—memorialise the Local Government Board.

Several correspondents have written to ask us whether, during the operation of the moratorium, a builder can enforce the terms of a contract against the building owner. These correspondents all lay stress on the hardship of being refused payment on the contract while they are nevertheless compelled to pay wages promptly. As we have recorded in previous issues, the moratorium immediately placed wage-payers, and especially builders, at a very serious disadvantage, and their case was promptly taken up by the Federation of Building Trades Employers, who endeavoured, without success, to procure exemption of the building trades from the embargo. It was in vain that the Federation stated the predicament in which master builders had found themselves on being unable to get money either from their clients or from the banks wherewith to pay the workpeople's wages: the Government refused exceptional treatment to an industry that employs more skilled labour than any other in the country.

Possibly the Government has very good reasons for its refusal; in which case the least it can do is to legitimise in some way the cessation of contracts at the point at which payment is refused. In cases in which the builder has little or no reserve of capital this cessation is automatic, for the very sufficient reason that his men will not continue to work when their wages are not forthcoming. Yet, whether or not the building owner pays the sums that become due on the contract, the builder who stops work does so at his peril, laying himself open to an action for breach of contract or to the exaction of time-penalties or forfeitures for non-completion. In short, the moratorium has put the builder into a very tight place, from which, we sincerely trust, the Federation will be able to persuade the Government to find some means of speedily extricating him. Otherwise the already very heavy percentage of unemployment in the



building trade will be painfully and even dangerously aggravated. For the avoidance of this calamity the Government might do worse than advance loans against wages and upon the security of the sums falling due upon contracts but withheld under the shelter of the moratorium.

\* \* \* \*

Some such remedy seems to be imperative. For it cannot be imagined that the suspension either of the moratorium or of contracts would promote industry. It is not to be overlooked that, while some few building owners may possibly be taking undue advantage of the moratorium, others taking cover under it in an excess of timidity, the majority of them would prefer to pay up if they were able. But if A pleads the moratorium against B, then C, the builder, cannot get his money from B; and for the moment the Government seem powerless to break this vicious circle. We suggest that these conditions might be met by the institution of credit banks, such as those which on the Continent have been found so useful in tiding over extraordinary temporary industrial embarrassment.

### HERE AND THERE.

THE past few weeks have made brutally plain what has long been apparent to many thoughtful people, that underlying all German "culture" there is a crude element. The legions that have devastated the fair land of Belgium have afforded frightful proof of this, but the same crudeness has been shown for years past in the development of modern German architecture. Though we ourselves, or at least a certain band of mistaken enthusiasts in this country, were responsible for the affliction known all over Europe as New Art, it was Germany who espoused the cause with greatest zeal, and a riotous welcome it had in the Fatherland. Recent years, however, have witnessed the general decline of New Art, and in place of it we have been accorded another German compound made up of Classic elements and a weird collection of modern motifs. I am quite ready to admit that there is a certain virility in it, and some of the best men—followers of Alfred Messel, from whom the vogue sprang—have done work which arrests attention. But to me the bulk of it is frankly brutal. It is Greek work, modern construction, and very badly copied French detail, all jumbled together with characteristic Germanic thoroughness and efficiency. And in passing we may note that efficiency is a word that is really misapplied to architecture. We can imagine an extremely efficient architect getting to his office at precisely the same hour every morning, settling down to his very efficient drawing-board, and working all day long with stolid efficiency until the appointed precise hour for finishing the day's work; and the result of it all may be architecture of the most deplorable kind. Messel seems to have been tarred with this brush of efficiency. In this journal some time ago a writer entered upon some special pleading for Messel. He pointed out that Messel developed two old styles to serve different purposes. The first was a constructional style particularly adapted for warehouses and great stores, and was founded upon late Gothic of a perpendicular tendency, the Wertheim store being its best-known example; while the second style was for houses, hotels, and public buildings in which construction was subservient to comfort and public dignity. Admittedly he did some very clever work, but his followers, even the gifted ones, have been far less happy. I have before me a series of illustrations of the new town hall at Spandau, a typical example of what is being done in Germany to-day as the outcome of Messel's teachings. First and foremost it displays that exaggerated verticality which seems to be an obsession among modern

German architects. There are attenuated pillars with lanky windows between them, and a formless pantile roof with low, swelling domes which look as though they had bulged up over the portals. The portals are set about with crude ornament, from Roman buildings, figures that derive their inspiration from the Baroque of Italy, cornucopia and baskets of fruit and flowers that descend in a straight line to the French of Louis XVI. But all that was so in the original has been transmogrified by the German architect, who seems to have been animated with the idea of being both archaic and modern at the same time. The result is grotesque. The building has some merit in possessing a certain rectangularity, a rhythm of repeating features, but it is utterly lacking in the element of sweetness, and the ornamentation sprawls over it is an aggravated offence. Far different from this stuff was the stately work of Schinkel a hundred years ago. His was a scholarly adaptation of the Classic, free from the vulgarities which we see in German buildings to-day. The fact is, the Germans are not an artistic people, and never have been; their buildings proclaim it.

\* \* \* \*

While referring to architecture in Germany I must just note that the Kaiser himself is not only a patron but an exponent of the art—as witness a designed church tower in the Romanesque style. And in architecture, as in all else, His Majesty believes in the rightness of royal dictatorship. Not long ago, to be remembered, the Emperor upset the competition which had been held for the new German Embassy in Washington, when he set aside the assessors' award of the 272 designs submitted, and gave the work to the architect of his own choice, Von Ihne. I recall the story of the architect who humbly submitted for royal approval his design for a new church in Berlin. His Majesty, intending to make a marginal remark with regard to a cross on the top of the steeple, wrote a letter for reference above the cross, and drew a diagonal line from it. Then he changed his mind, and vigorously crossed the letter through. When the architect received his drawings back he carefully studied all the Emperor's directions, and mistook the crossed-through letter for a star. Knowing better than to ask questions, he built the church accordingly, putting a big star on a huge iron pole straight up to the top of the cross!

\* \* \* \*

An architect friend of mine who was in Paris a short time ago sends me a note on the Prix de Rome drawings, shown in the exhibition room of the Salon des Beaux-Arts. He observes: What enormous sheets of paper! At first sight they cause visions of young men suspended on trapezoidal order not to soil the drawings with their feet, or kneeling on cushions in uncomfortable attitudes. On closer inspection, however, the fact is revealed that the sheets are composed of long strips cunningly put together, each individual strip being of such dimension that it can be negotiated by the ordinary tee-and-square. One naturally asks what effect this method of representation has upon architectural conception and draughtsmanship. In the first place, it may be remarked that the mere fact of having to cover a vast area of paper necessitates a rapid method of delineation; a certain clean smartness, the effect of which is exceedingly agreeable. Secondly—and this has reference to colour rather than to line drawing—the student is never allowed to forget that his drawing is being part of a very large picture, and has to be seen from some distance away if its whole import is to be grasped and therefore he adopts a bold and simple chromatic scheme that is further enhanced by a precise method of chiaroscuro. There is nothing messy, time-niggling about these drawings.



## ESTIMATES AND PRICES DURING THE WAR.

We are glad to note that the articles which we have published with regard to the pricing of tenders during the war have not only a considerable amount of interest, but have from architects and others a number of highly suggestive suggestions with regard to the steps which should be taken if the difficulties with which we find ourselves confronted are to be safely overcome. From Mr. Max Clarke, F.R.I.B.A., we have received the following important communication:—

Your editorial on page 170 of your Journal of September 9, with regard to the pricing of estimates and tenders, is one in which every architect, contractor, and client must take a serious interest. The suggestions are very well put from a certain point of view, and it appears to me that there is a certain amount of 'legislation' advocated which may not be entirely wise.

Contractors' estimates are always more or less a matter of speculation. Prices of materials in times of war may rise or fall during the period which every contractor takes to carry out, and the question is, it seems to me, are the fluctuations of prices to be regarded, due to the unfortunate state of war this year, as being involved in, such as to warrant a radical change in the method of estimating? Your editorial suggests a system which would involve the client in a contract, the end of which he could not foresee, and which would lead to an advance of prices quite unwarranted at the present time. If this was explained fairly and honestly to the client it might have such an influence on his mind as to induce him to avoid entering on any building operations at the present time, which is, I think, the very thing we all wish to avoid. The builders, represented by the Institute of Builders and the Association of Building Trades Employers, want the following:—

1. A clause inserted in building contracts covering the price of materials between the date of the tender and the signing of the contract.

2. A clause allowing the substitution of other materials for those of foreign origin which cannot be obtained during the carrying out of the contract.

3. A clause to the effect that, if any employer takes advantage of the moratorium and does not meet certificates issued, the contractor to be at liberty to suspend his works until the amounts certified are paid.

In my opinion Clause 1 could be met by the contractor accepting the tender within, say, forty-eight hours after its receipt. Clause 2 is a quite legitimate demand and could be covered by a clause empowering the contractor to substitute other materials, which power he has not got at present. Clause 3 is obviously unreasonable, and could be easily drafted to meet the case. In any case, the client who cannot pay must be content that the completion of his building should be delayed.

My suggestion that an application should be made to the Government to fix a schedule of prices of building materials requires serious consideration, and only the question arises whether the advance in prices warrants Government intervention.

During the period from July 17 to September 11 we have had the following prices:—

1. The price of bricks is practically the same.

2. The price of sand is 3d. a yard up.

3. Cement and lime are the same.

4. Stone is the same.

5. Tiles and tiles are practically the same.

6. Timber, fir, is up about 45s. a standard.

7. Steel is up 10s. to 20s. a ton.

8. Lead is up 35s. a ton.

9. Glass is up 1½d. to 1d. per foot.

"The prices of painter materials are slightly advanced.

"Is it at all probable that the Government would intervene with prices as they are? Timber is the only material in which there is a substantial rise in price, and of course if the Government did fix a price it would have to be the *maximum*, which all the merchants would immediately charge. It seems to me that the fixing of maximum prices might not be to the advantage of the employer."

We think that Mr. Max Clarke has very ably summarised the whole situation. Clauses on the lines he suggests should be immediately incorporated in the form of contract; and it is to be hoped that the War Committee will give this matter their prompt attention. We publish on page 206 a letter from Mr. Cresswell, who takes up a similar attitude to Mr. Max Clarke, and at the same time offers one or two comments on Messrs. Townsend and Quennell's clauses, which we published last week.

With regard to Mr. Max Clarke's communication we should like to point out that, although, as he shows, prices have not yet risen to any very considerable extent, there is no reason why Government intervention should be withheld. The Government cannot, of course, control economic conditions; but they can establish a definite schedule of prices from time to time, just as they did with regard to foodstuffs in the early stages of the war. That fluctuations must occur is obvious; but if those fluctuations could be periodically scheduled and attested by the Government, thus establishing a reliable standard from which everyone could work, the building industry would be in a much surer position.

## THE PLATES.

### *The Paris Opera House.*

THE two further views of the Paris Opera House (front and rear elevations) given in this issue should be studied in relation to the plan of the building, which was published last week. Garnier's wonderful faculty for design is clearly shown. The front elevation is more harmonious in composition than the rear, which is somewhat crude in comparison; but the great disparity in the height of the two fronts necessitated a different architectural treatment. The



1, Drawing Room; 2, Hall; 3, Library; 4, Dining Room; 5, Corridor; 6, Pantry; 7, Staircase; 8, Vestibule; 9, Billiard Room; 10, Boots and Knives; 11, Kitchen; 12, Lavatory; 13, Scullery; 14, Larder; 15, Coal; 16, Servants' Hall.

WEMYSS HALL, CUPAR, FIFE: GROUND-FLOOR PLAN  
SIR R. S. LORIMER, A.R.S.A., F.R.I.B.A., ARCHITECT.



groups of sculpture on the front elevation are (on the left) "La Danse," by Carpeaux, and (on the right) "Lyric Drama," by Perraud.

*The Maine Memorial, New York.*

Many fine monuments have been erected in the United States from the designs of Mr. Van Buren Magonigle, and that illustrated in this issue is one of his best. It stands on a site in Central Park West at Fifty-Ninth Street and Eighth Avenue, New York. In conception plain and simple, it forms a fitting memorial to the men who, "by fate unwarned," went to their death in the sinking of the Maine.

*The Union Bank, Pittsburgh.*

This building offers yet another instance of the success which Americans achieve in the design of buildings having elevations of great height.

*Georgian House at Beckenham.*

This house is now being demolished. The porch dates from about 1780, but the house is of an earlier period. The whole forms a simple yet effective composition.

*Wemyss Hall, Cupar, Fifeshire.*

This house, as shown in the illustrations, takes the place of a small square house which dated from the end of the seventeenth or the beginning of the eighteenth century. Some of the hewn stone from the old house was re-used in the new. The house faces due south, and is sheltered from the north and east. The house is built of stone taken chiefly from an old farm-stead and other ruinous buildings adjoining the site. Sir R. S. Lorimer, A.R.S.A., F.R.I.B.A., was the architect.

*House at Sunningdale, Berks.*

The house of which we publish a working-drawing in this issue is situated on the golf links at Sunningdale, Berks, and is now nearing completion. The cost, including motor garage, sheds, and garden walls, approximates £3,000. Messrs. Norris and Co., of Sunningdale, are the builders, and Messrs. Richardson and Gill, F.R.I.B.A., the architects.

## CORRESPONDENCE.

*The Editors disclaim all responsibility for the statements made or opinions expressed by correspondents, who are asked to be brief, and to write on one side only of the paper. Every communication must bear the name and address of the sender.*

*War Risk Clauses in Building Contracts.*

To the Editors of THE ARCHITECTS' AND BUILDERS' JOURNAL.

SIRS,—I have read with much interest the additional clauses to cover war risks, which have been added to the R.I.B.A. form of contract by Messrs. Harrison Townsend and Quennell, in connection with a contract entered into since the commencement of the war; and while congratulating them and their clients on their endeavour to grapple with what is undoubtedly a very difficult and very important question at the present time, I do not think the clauses as published can be considered as entirely solving the difficulty.

The first question which presents itself to one's mind on reading through their additional clauses is, Who is to say what increase in price arises "solely from the state of war at present existing," and what increase from other causes?

There are constant fluctuations going on in the price of certain materials, such as timber, lead, copper, iron, and the like, and these fluctuations would be likely to occur in time of war just as much as in time of peace, with the added increase in time of war due to the shortage of supply from certain markets and other causes.

Now the builder would naturally claim that increase which occurred after the signing of the contract was "solely due to the state of war," and not see how anyone is to disprove his contention. It seems to me, therefore, that the proviso which limits the power to charge extra for any increase in the price of the material and labour, to such increase as is "solely due to the state of war" will be of no effect. I cannot see how anyone is to determine this. Consequently all increases in prices which arise after the date of tendering will be claimed as extras, and it can be distinctly shown that they are due to other causes. In other words, there would be the same contention as to whether the increase was *post propter hoc*.

It seems to me that a better and more systematic way of dealing with the difficulty would be to put out the suggestion which was, I think, made in my own journal a short time back, viz., that an official committee composed of architects, builders, quantity surveyors, and merchants, with perhaps an official representative of the Board of Trade, should meet from time to time to agree what was the fair current price for standard materials, and that every contract entered into should be based upon the prices prevailing at the time the tenders were sent in. Variations in price of material and labour either upwards or downwards during the time the contract was in progress should be dealt with when settling up the account at completion, but in order to safeguard both the employer and the builder against undue fluctuations either upwards or downwards, should have power to terminate the contract in the event of the fluctuations exceeding a certain percentage of the contract sum.

I think that some such method as this would be a much more satisfactory way of dealing with the difficulty, but it should be instituted at the earliest possible moment to be of any real service.

H. O. CRESSWELL, F.R.I.B.A.

17, Buckingham Street, Adelphi, W.C.

*The Architects' War Committee.*

To the Editors of THE ARCHITECTS' AND BUILDERS' JOURNAL.

SIRS,—I send you herewith a copy of a letter dated September 11, which was sent to the Government by the Architects' War Committee, and also a copy of a reply, dated September 14, which has just been received.

IAN MACALISTER

Secretary, Royal Institute of British Architects,  
9, Conduit Street, W.

*[Copy of Letter to Government.]*

September 11, 1914.

SIR,—The Royal Institute of British Architects, feeling it to be their duty in this national emergency to arrange for such collective action by the architectural profession as may be found to be desirable, with the co-operation of members of other architectural bodies, formed an Architects' War Committee, which is broadly representative of the whole architectural profession in the United Kingdom.

This committee desires to offer to His Majesty's Government an assurance of the loyal and energetic support of the profession in any direction which may be found to be practicable and desirable.

It is felt that the Imperial Government is best placed to indicate what form of assistance would be of most value to it, and the committee would welcome any suggestion from the Government in this direction.

The committee is prepared to furnish information on all matters in which the State may require the services of architects in any part of the United Kingdom during the period of the war, and to give advisory assistance in connection with any scheme



tion which the Government may contemplate  
emergency.

We have the honour to be, Sir,

Your obedient servants,  
ERNEST NEWTON, P.R.I.B.A., Chairman  
Architects' War Committee.

C. STANLEY PEACH, Hon. Secretary of the  
Architects' War Committee.

Right Hon. J. A. Pease, P.C., M.P.

[Copy of Reply from Government.]

Whitehall, London, S.W., September 14, 1914.

I have to thank you on behalf of the Govern-  
ment for your letter of September 11 and for the  
generous and patriotic offer of help made by the  
Architects' War Committee. I am forwarding your  
offer to other Government Departments, and if any  
opportunity of utilising your help arises a further com-  
munication will be sent to you.

Yours faithfully,

(Signed) JOSEPH A. PEASE.  
Stanley Peach, Esq., R.I.B.A.

### Architects Enlisting.

SIRS,—Since your last issue, recruiting for the Royal  
Engineers has stopped, but it may start again any day.  
This being the case, I am keeping a list of men who  
desire to join this corps, and I should welcome  
additional names, so that we may send up as big a  
draft as possible, when recruiting restarts.

For those who cannot wait I have made arrange-  
ments for them to join the infantry, and to be kept  
together in one company.

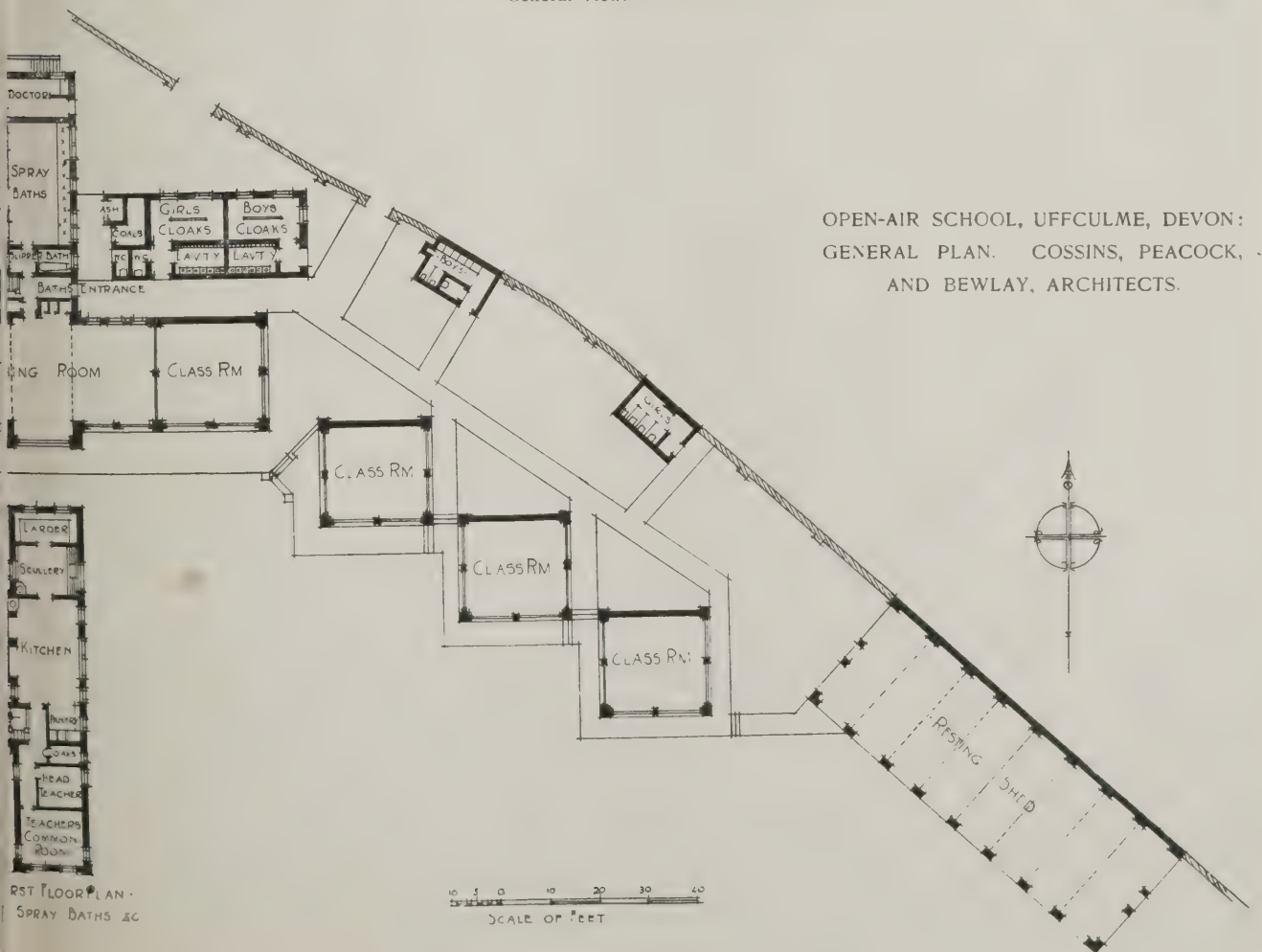
ALAN POTTER, Hon. Sec., A.A. War Service Bureau,  
18, Tufton Street, Westminster, S.W.

### AN OPEN-AIR SCHOOL.

THIS school, erected at Uffculme, Devon, from the  
designs of Messrs. Cossins, Peacock, and Bewlay,  
of Birmingham, is a good example of current  
practice. Built on a sloping site, it comprises, roughly,  
four classrooms, a dining-room, separate accommoda-  
tion for teachers, spray baths, and a large resting shed.  
Each class-room accommodates about 32 children.



General View.





## ENQUIRIES ANSWERED.

*The Crittall Case.*

H. B. (Yorks) writes: "In the Journal for September 2, p. 159, there is a reference to a point of law in regard to sub-contractors, and the 'Crittall' case is mentioned. I should be glad if you would restate the result of this case, as I do not remember seeing it in the Journal."

—What is known as the "Crittall" case was duly reported in the Journal of November 30, 1910, pages 570, 571. It was tried in the High Court of Justice (King's Bench Division), on November 4, 1910, by Mr. Justice Channell. The Crittall Manufacturing Company, Ltd., sought a declaration that a contract was made between them and the London County Council for the execution of certain works—namely, the supply and fixing of a number of metal casements, etc., for an addition to the L.C.C. School of Building at Brixton. The chief question at issue was whether a sub-contractor whom the chief contractor fails to pay is entitled to look for payment to the building owner; and Mr. Justice Channell held that when an architect directs the chief contractor to order specified goods from a specified firm, he directs the chief contractor to make a contract for him (the architect). He accordingly gave judgment for the specialists (Messrs. Crittall) as against the building owners (the London County Council). It should be noted, however, that concerning this case Mr. A. A. Hudson remarks ("Law of Building, etc., Contracts," Vol. I., p. 647): "Some support to the proposition that the architect has such implied authority is furnished" by the Crittall case; "but in that case the Court assumed that the architect had authority because want of authority was not sufficiently pleaded." He thinks it doubtful whether an architect or engineer has any implied authority, by virtue of his position as architect or engineer of the building or undertaking, to bind the building owner by arrangements made by him with specialists, and more especially where



OPEN-AIR SCHOOL, UFFCULME, DEVON: A CLASSROOM.  
COSSINS, PEACOCK, AND BEWLAY, ARCHITECTS.

(See preceding page.)

the arrangements are not businesslike or are not in accordance with the provisions of the main contract.

*Damage by Growth of a Tree.*

E. H. W. (Portsmouth) writes: "A 9-in. wall between the respective shrubberies of two houses is being gradually forced over by the growth of a tree, and the deflection of the wall has caused a gate to jam. Is the owner of the tree responsible to the owner of the gate? Ownership of the wall is in dispute."

—The natural growth of a tree—whether branches or trunk—may certainly result in an encroachment and may cause a good

deal of annoyance and trouble checked in its initial stages. An element of this kind may be remedied exactly the same way as an encroachment; but, under the circumstances, there is no doubt that it would be very lenient in judgment there must always be a good deal of "give and take" in such matters.

In this particular instance the owner of the tree no doubt overhangs the neighbouring garden and are themselves passing. I am of opinion that: (1) The owner of the tree is responsible, but any damage done must be substantial; (2) the court of law will recognise it; (3) the wall belongs to the owner of the house itself becoming an encroachment; (4) the reason of its deviation from the perpendicular: should it fall and do damage the owner would be liable, provided he was aware of its dangerous condition and had been warned by his neighbour that it was becoming dangerous.

*Sub-contractors and the Moratorium.*

H. B. (Yorks) writes: "Can a sub-contractor claim a payment on account of work done whilst the moratorium is in force?"

—No; and it is certain that the effect of the moratorium is a great hardship on the sub-contractor while compelled to pay wages and are debarrd by the moratorium in obtaining the wherewithal to meet the bill.

*Weather Pointing.*

BUILDER writes: "In order to keep water out of the stone walls of a building, weather pointing is necessary. Is it better to do this with a trowel or an iron joint?"

—Weather pointing with a trowel is slightly better than the form made with an iron jointer in ordinary brickwork. With rough blocks of stone there is practically nothing to choose between the two, if anything, the ruled joint is the better, as, the blocks adjoining it being bevelled, water would find an easy lodgment in the space formed by the bevelled joint.



OPEN-AIR SCHOOL, UFFCULME, DEVON: A CLASSROOM.  
COSSINS, PEACOCK, AND BEWLAY, ARCHITECTS.

(See preceding page.)



## FOR KING AND COUNTRY: THE ROLL OF HONOUR.

in response to our request for names of architects who are serving with the army or are otherwise engaged in war work, we have received the following to the Roll of Honour:—

John Brown, of Brown and Architects, 80, Abington Street, London, is with the 4th Battalion, Leicestershire Regiment, somewhere in the Western Front.

Alan H. Scott, F.R.I.B.A., 13, Lincoln's Inn, London, has just joined the following members of staff have already joined the

R. Bates, Royal Fusiliers.

Gar Bunce, Royal Engineers.

Eiloart, Field Ambulance,

Markett J. Emery, M.S.A., Council Secretary, 109, Colmore Row, Birmingham, has joined the Birmingham City Battalion, which will be known as the 1st Battalion, Warwickshire.

James Kenyon Hopkinson, partner with his father, Alfred Hopkinson (A. Hopkinson & Son, Architects, 15, Agur Street, London), after applying for a commission to enlist in the Royal Engineers, which corps recruiting was suspended, has joined C. Squadron, 12th Regiment Cavalry.

#### Architectural Association Volunteer Training Corps.

Alan Potter, Hon. Sec. of the Architectural Association War Service Bureau, has just received a letter appears in our columns, forwards the following information:—

A.A. Volunteer Training Corps, as proposed by Mr. Maurice Webb, is being formed in connection with the Central Volunteer Training Corps, of which Lord Desborough is Chairman. This Committee has just received permission from the War Office to create training centres throughout the kingdom for men who are fit for Lord Kitchener's Army, or Territorials, or who are prevented by special circumstances from joining the

A.A. Corps, of which the rifle clubs form the nucleus, is open to all architects, surveyors and members of other professions; the only qualification is that they are prevented from joining any other corps at present constituted.

The headquarters of the corps will be the Central Electric Supply Co.'s, 1, Lodge Road, St. John's Wood, London, where there is ample accommodation for rifle practice, revolver practice, drill and skirmishing.

Members can drill any day of the week on Sundays, and obtain musketry practice likewise, except on Tuesdays and Wednesdays.

There is an entrance fee of 5s. and a subscription of 2s. a month, but this latter may be increased if the cost of munition advances.

Rifles and revolvers of service weight are provided for musketry practice at the range, with an allowance of twenty-one rounds of ammunition per day free of charge, and members will be able to obtain further supplies at the range if required. The general equipment of the corps will depend on private effort to a certain extent, but assistance will also be given from the Central Volunteer Training Corps Committee.

It is not proposed to limit membership of the corps in any way except as stated above, and I should be glad to receive names of intending members as soon as possible. All applicants should state clearly why they are unable to join the Army, and when enrolled they will be furnished with a special pass to admit them at headquarters.

A special branch of the Motor Transport Corps is now being formed to collect and repair the numerous cars attached to the Allied Forces in the field. A limited number of recruits are required immediately.

Every man applying must be a mechanic skilled in motor repairs, and he should state whether he can bring his own car or motor-cycle.

Pay for the lowest rating will be 3s. 3d. a day. As the Corps is expected to leave England shortly, recruiting must be rapid, and men wishing to join, who have the necessary qualifications, should communicate with Mr. Alan Potter at once.

Communications should be addressed to Mr. Alan Potter, Hon. Sec., Architectural Association War Service Bureau, 18, Tufton Street, Westminster.

#### Forty-five from One Firm.

Messrs. Harris and Sheldon, Ltd., Shop Front Builders and Shop Fitters, Stafford Street, Birmingham, inform us that the number of their workmen and staff who have now joined the colours is increased to about forty-five, including those engaged at their branches, many having joined the Birmingham City Battalion. The firm are making suitable provision for the wives and families of men who have gone to the front and will continue to do so, as long as the course of business renders it in any way possible, and their situations will be kept open. They add that the trade can guarantee hundreds of their married workpeople from any anxiety, or fear of being without work during the coming winter, if they will only send in their season's order now. Up to the present the firm have scarcely reduced the number of their employees at all, except so far as this result has been brought about owing to a number joining the colours, but, as is perhaps only natural, they have been compelled to reduce the time worked from the normal. They earnestly ask their friends to assist in continuing the employment of workpeople by sending any orders, whether small or large, "and so keep the flag of industry flying, which is so necessary now for the welfare of the country generally."

#### The I.C.S. and the War.

The International Correspondence Schools, of Kingsway, London, inform us that they have more young men of military age on their register than any other institution in the country. A great deal of public interest has therefore been aroused as to the effect of the war upon these schools, and considerable attention has been attracted to the official action that has been taken by the Institution.

There are 1,200 I.C.S. students in the British Navy. These men in time of peace have been devoting their spare time on board to gaining a technical knowledge of some trade or industry, which will provide them with a good livelihood when they leave the service. On some of the larger battleships there are as many as forty students enrolled. The first I.C.S. naval student to lose his life in the war was Chief Telegraphist W. C. Mair, who perished in the "Amphion" disaster.

Another I.C.S. student, Fred Coke, was

on the famous "Arethusa," which recently led the British Fleet into the Heligoland Bight, and he too was killed in action. The schools have students on board the "Highflyer" and the "Gloucester," which early distinguished themselves in the Naval campaign.

In the Regular Army the institution has 1,300 students, and about 7,500 more were called to the colours with the Territorials and Reserve Forces during the first month of hostilities.

There are some 400 I.C.S. representatives scattered throughout every city and town in this country, and, acting upon instructions from the management, these gentlemen are exerting their influence with students and other young men with whom they come in contact, to go to the defence of their country. The results have been gratifying, and the schools have arranged with the War Office Authorities that their students now enlisting shall serve together in a special corps.

The I.C.S. authorities have offered to the Government the use of the extensive buildings on their estate at Hendon as a military hospital. It was, however, pointed out that the national interests could best be served by using the buildings, together with the beautiful grounds in which they are situated, as a Home for Belgian Refugees' children, and this suggestion has been adopted.

The families of married members of the Schools staff who have joined the Colours are being taken care of, and a War Relief Fund has been established in the interests of the families of students who are wounded or killed. For this fund a considerable portion of the revenue of the schools is being set aside.

The policy of the Schools during this crisis is a sound one, namely, "In Time of War Prepare for Peace." All departments are working and the terms and advantages of enrolment are the same as ever. The Students' Aid Department is dealing fully and efficiently with the changed conditions. Everything possible will be done to help those students who cannot go to the front to market their abilities in places where work is plentiful and where trained men are required. Not more than 1.5 per cent. of the students have fallen out of work through circumstances brought about by the war, and a large number of these have already secured new positions.

Finally, it is the duty of every Briton who, for any reason, cannot fight in Lord Kitchener's Army, to devote his spare time to acquiring a sound technical training, so that he can take a higher position in the ranks of industry, and at the same time help this country to wage a successful war on Germany's Trade. It is largely because the Germans have got ahead of us in technical education that we are under the grim necessity of fighting them to-day.

[While we gladly give publicity to examples of practical patriotism among those who are in any way connected with the profession or industry of building, and confess our admiration for those who are in this way making sacrifices for our country, we wish to record also our recognition of the many and various circumstances that debar thousands from sharing that privilege in these specific forms. We know, for instance of many young professional men (including, as it happens, members of our own staff) who have been rejected for no better reason than that they are obliged to wear glasses.]



## PROJECTED NEW WORKS.

*Bridge, Sunderland.*

The Sunderland Corporation are to erect a new bridge over the Wear in the place of the present Wearmouth Bridge.

*Cottage Homes, Conway.*

The Conway Board of Guardians are about to apply for tenders for the erection of new Cottage Homes.

*Secondary School, Douglas, I.M.*

The Douglas, I.M. Education Board have been granted a loan of £10,500 for the erection of a new secondary school.

*Cottages, York.*

The York City Council have decided to erect twenty-eight cottages on the Fulford Field Estate for the tramway men. The estimated total cost is £6,851.

*Improvements, Poole.*

The London City and Midland Bank propose to rebuild premises at the corner of High Street and Hill Street, Poole, as a branch bank.

*Training College, Glasgow.*

The Glasgow Provincial Committee for the Training of Teachers is to build a college at Jordan Hill, at an estimated cost of £200,000.

*Cottages, Boston.*

Boston Rural Council have received permission to borrow £8,340 for the provision of working class dwellings in eight parishes of the district.

*Cottages, Wokingham, Berks.*

The Wokingham Town Council have adopted a report from their Housing Committee recommending the erection of four pairs of cottages at a cost of £400 per pair.

*Housing Scheme, Westhoughton, Lancs.*

The Westhoughton Council have instructed the Housing Committee to prepare a scheme for the erection of suitable houses for workmen.

*Housing, Honiton, Somerset.*

Honiton Guardians and District Council have decided to apply to the Local Government Board for authority to prepare a town-planning scheme.

*Installation, Dublin.*

Tenders will shortly be invited for the heating and ventilation, and for the plumbing, drainage, hot water service, fire mains, also the electric lighting of University College, Dublin.

*Dwellings, Brixham.*

The Brixham (Devonshire) Urban District Council have received sanction to borrow £3,810 for workmen's dwellings, and the surveyor has been instructed to obtain tenders for the work.

*Housing, Torrington, Devonshire.*

The Local Government Board have sanctioned a loan by the Torrington Town Council of £11,000 for the carrying out of a housing scheme. The question of inviting tenders has been postponed for a month.

*Houses, Beaconsfield.*

On a site given by Lord Burnham at Beaconsfield the urban district council is about to erect forty houses for the working classes, and application has been made to the Local Government Board for leave to borrow £9,600.

*Enlargement, Woolwich.*

The Governors of the Woolwich Polytechnic have been granted by the London County Council a sum of £26,000 to enable them to improve and enlarge the present buildings. Plans have been prepared, and the work will be commenced almost immediately.

*Municipal Offices, Southampton.*

Southampton County Council are to consider at their next meeting a recommendation from the Town Hall Committee that the necessary steps be taken for the appropriation of a portion of West Marlands for the purpose of erecting municipal offices and a Town Hall.

*Swimming Bath, Birmingham.*

A swimming bath is to be erected by the Birmingham Baths Committee at Saltley, on the site of the old police station at George Arthur Road. At the Northwood Street Baths, one of the oldest in the city, sanitary and other improvements are to be carried out in the fabric.

*Residence, Willesden.*

The Willesden Guardians are to build a residence for their medical superintendent at Acton Lane, at a cost of £1,200. Mr. J. Cash has been appointed architect of the proposed residence, and Messrs. Northcroft, Neighbour and Nicholson, of 337, Birkbeck Chambers, W.C., quantity surveyors.

*Housing, Caerphilly.*

The Caerphilly District Council have received permission to borrow money for the purchase of six acres of land on the Grange Estate, Caerphilly, for the erection of council houses. The Local Government Board has also sanctioned the borrowing of a loan of £2,853 to lay out recreation grounds at Nelson, Abertridwr, and Taffs Well.

*Y.W.C.A., Newcastle.*

It has been decided to extend the premises of the Newcastle Young Women's Christian Association in Saville Row. The adjoining house and yard to the west have been purchased, and the Association's architect, Mr. Plummer, has been consulted as to remodelling and extending the present premises.

*Hospital Buildings, Colchester.*

The Colchester Town Council propose to spend £3,110 on erecting pavilions at their Infectious Hospital, Myland, and on alterations and additions to the administrative block of the hospital. A Local Government Board enquiry, at which there was no opposition to the application to borrow the money, has been concluded.

*Housing Scheme, Margate.*

The Margate Town Council have unanimously adopted a committee report recommending the erection of forty-two houses for working classes on the old reservoir site in the rear of Milton Road. The Local Government Board is to be asked to sanction a loan of £9,970 for the purpose, the expenditure to be distributed as follows: Thirty-two cottages at £210, and ten cottages at £175, £8,470; roads and sewers, £1,000; land, £500; total, £9,970.

*New Buildings, Upper Renfrewshire.*

The Buildings Committee of Upper Renfrewshire have approved of the plans of the following new buildings:—Double cottage in Wedderlea Drive, Cardonald, for David Paul, Magdala, Cardonald; office block at

Elderslie Graving Dock, York. Messrs. Barclay, Curle and Co. Ltd. Shipbuilding Yard, Whitnash, in Linwood Road, Elderslie, for Donaldson, Linwood; two-terraced in Glenville Avenue, Giffnock, for George Dixon and Son, Giffnock; at the Cat and Dog Home, Corke, the committee; addition to 1 House, Paisley, for Charles F. Paisley; cottage at Haugh Farm, Paisley, for Sir John Stirling-Maxwell, Bart., of Pollok; and laboratory at Paisley Foundry, Abbotsinch, for Bow, McLachlan and Co., Ltd.

*Police Barracks, Bournemouth.*

A Local Government Board enquiry has been held into the Bournemouth Borough Council's application for permission to borrow £3,500 for the purchase of property in Stafford Road near the Law Courts for the purpose of barracks and quarters. It is proposed to remodel the old police building at new premises with accommodation for thirty-two constables.

*Plans Approved, Darlaston.*

The Darlaston (Staffs) Urban District Council have approved the following plan for the erection of fifty cottages for the Darlaston District Housing Company, Ltd., in Richard Street, twenty in Wolverhampton Street, ten in Upper Castle Street, twelve in Dorsett Street and Hill Street, extensions to Messrs. F. H. Lloyd's Works, James Bridge, and extensions to Messrs. Wiley and Sons' Works, Street.

*Council Schemes, Rhyl, North Wales.*

The Rhyl Council have received permission for the borrowing of £3,777 for the works, £231 for pumping station, and £168 for new machinery. The Council have sanctioned the Local Government Board scheme for a new amphitheatre, £4,000, and are considering plans for a new pier scheme and the laying out of a portion of the sea front in marine.

*"PUNCH" AND THE KAISER.*

With "Punch" for September 1914 issued a special supplement entitled "New Rake's Progress," comprising cartoons illustrating the Kaiser's career. They have appeared in "Punch" between 1890 and 1914. Among the most scathing of the pictures is the small illustration on the title-page, in which the sanctified Kaiser, clothed in canonicals, all righteousness, and having a nimbus over his head, stands at a lectern which, on close examination, is seen to be composed of a machine gun muzzle forming a shaft, with an array of bullets for a barrel, and surmounted by a pikelhaube. On the lectern is perched a peculiarly German figure. Wilhelm is saying, "Let us prey." The cartoons there are two (presented by Tenniel, and there are six by Sambourne, four by Bernard Partridge, one by F. H. Townsend, and two by Hill. All are excellent examples of masters in draughtsmanship, each in his own style unapproachable. Nothing has ever been done than "The Kaiser's Enemy," in which the Spirit of the Kaiser responds to the Kaiser's challenge, "goes there?"—"A friend—you one." To consummate drawing perfect composition the artist Bernard Partridge adds a dramatic intensity that could hardly be exceeded.



## LOCAL AUTHORITIES AND CONTRACTS DURING THE WAR.

the heading "Prices, Contracts, War," on page 198, of the issue of September 16, an emergency contract proposed by the Dublin Trades Employers' Association, with a slight modification, Royal Institute of the Architects of was given in full. Later informants that this form of contract has been adopted by the Pembroke Urban Council in connection with their housing

special meeting of the council the chairman said that tenders had been received for the erection of houses under the contract, but in apprehension of a rise in the price of the materials, owing to the war, contractors were unwilling to perfect their bonds, and the council had no power to compel them to do so. A deputation from the contractors to carry out the work, though tenders had been accepted. As a deputation of the Dublin Trades Employers' Association appeared on the council to urge the adoption of the emergency terms of contract referred to. A deputation from the council then placed the matter before the Local Government Board, by whom a saving clause was regarded as satisfactory in the circumstances. In connection with the contract now, the chairman said, would prevent a great deal of distress in the district, and he thought the arrangement should be emulated in the country.

The chairman, in reply to the chairman, said there was no legal objection to

accepting the contract on these conditions, seeing the Local Government Board had assented to their doing so.

The chairman said there was one other question the council would have to consider, and that was whether, in view of the increase in price, the extra cost would be put on the rates or on the rents of the cottages. The policy of the Pembroke Council had been to make the rents pay for the cost of the cottages, but under present circumstances the Local Government Board had power to grant money from the National Relief Fund for the building of houses to relieve distress, and grants might also be made from the Prince of Wales's Fund. He had mentioned this matter at the meeting with the Local Government Board, and had been told that it was one which would receive the very serious consideration of the Board.

The council decided to accept the tenders, the following being embodied in the contractors' bonds: "It being also a term of this agreement, and the council and the contractors mutually covenant and agree, the one with the other, that if the price or cost of any material necessary or essential to any part of the contract shall advance or be reduced by more than 5 per cent. over or under the rates current on the date of the acceptance of this tender the prices for such material shall be correspondingly increased or reduced; and further, it shall also be a term of the said agreement that all questions as to the price or cost of any material, and whether same has advanced or been reduced by more than 5 per cent., and whether such material is necessary or essential to any part of the work shall be deemed as

matters arising out of the contract, and to be determined by the architect; whose decision thereon shall be final, conclusive, and binding."

It was further unanimously agreed: "That we respectfully request the Local Government Board to favourably consider granting to the council a sum, if any, representing the increased amount of the cost of the building of the artisans' dwellings caused by the war crisis, over and above the amount of the tenders already received and accepted by the council. The council have been largely influenced in their decision to proceed with this work in the belief that the Local Government Board will see their way to meet the council, so that it will not be necessary to raise the rents of the houses to meet the increased cost, and also in the belief that it will prevent considerable distress in the district."

The chairman mentioned that the Local Government Board were inclined to favourably consider the scheme for the expenditure of £14,000 for the construction of the Merriem Baths, but that matter would be considered later by the council.

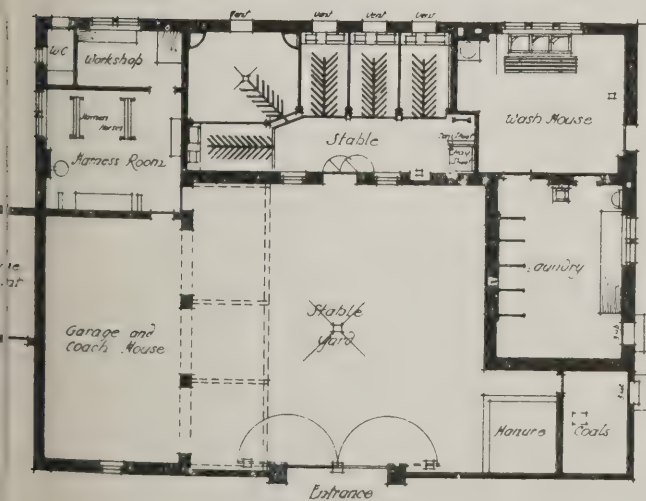
## GLASGOW SCHOOL OF ART.

In the Calendar for the session 1914-15 of the Glasgow School of Art, particulars are given of the various sections into which the school is divided. These refer to drawing and painting, modelling and sculpture, and design and decorative art; the section of architecture being dealt with in a separate prospectus. These sections comprise many subdivisions, of which a few that are interesting from our own special



*House at Glenfarg - Perthshire -  
Garage Stable Laundry etc. -*

*James B. Dunn F.R.I.B.A.  
Architect  
Edinburgh*



The illustration shows a neat solution of the somewhat difficult problem of grouping a series of more or less unrelated buildings into a compact whole. The drawing being self-explanatory, no further description is required.

GARAGE, STABLE, LAUNDRY, ETC., TO HOUSE AT GLENFARG, PERTHSHIRE.

JAMES B. DUNN, F.R.I.B.A., ARCHITECT.



point of view are: Mural and decorative painting, tempera, geometry and perspective, stone and wood carving, lettering and illumination, colour schemes and application, metal work, stained glass, stencilling, architectural design, and furniture design. The school, which was founded in 1840, in Ingram Street, removed in 1869 to Sauchiehall Street, and in 1899 entered the building it now occupies, which, however, was not completed until 1909. Classes are held in the morning, afternoon, and evening, and diplomas are granted on the results of the study. A well-appointed library, a museum of casts, a school museum of applied and decorative art, and a costume wardrobe are provided for the use of students. Possession of the diploma or senior certificate of the School of Architecture (the latter with the full preliminary examination) exempts from the preliminary and intermediate examinations of the R.I.B.A.

## TRADE AND CRAFT.

### *Period Designs in Electric Light Fittings.*

A forty-page pamphlet issued by Messrs. Simplex Conduits, Ltd., whose London showrooms are at 113-117, Charing Cross Road, W.C., is only indirectly and incidentally an advertisement. In substance it is a very interesting account of "Period Designs in Electric Light Fittings," by Mr. T. Birkett, who traces the historic development of design as influenced by national characteristics and powerful individualities, reflecting the gaiety of the Frenchman, the stolidity of the Dutchman, and the directness of the Englishman.

French, Dutch, and English styles are taken by Mr. Birkett in that order. It is recalled that in 1608 Henri Quatre established a factory for making beautiful furniture, and in the gallery of the Louvre, his own palace, lodged a number of the best painters, sculptors, metal-workers, and cabinet-makers whom he could persuade to accept service as masters for the training of artificers and craftsmen. This royal school of arts and crafts proving successful, Louis XIV. felt justified, a few years later, in establishing a royal furniture manufactory at Gobelins, where he gathered together the finest body of craftsmen ever assembled. It was in this way that the splendid reputation of French decorative craftsmen became established. The styles of Louis XIV., XV., and XVI., and of the Empire, may be said to have run their course by going from good to better, and from better to worse, with a reaction again towards betterment; the Classic refinement of the earlier examples giving place under Louis XV. to the excesses of the Rococo and Baroque, from which in the day of Louis XVI. there was a revulsion towards Classical delicacy of detail; while under the Empire craftsmanship seemed to lose its national and personal touch. Most influential of the masters under Louis XIV. were Jean and Pierre le Pautre, Jean Berain, Daniel Marot, and André Charles Boule; Berain and Marot being most typical of their period. It was during the reign of Louis XV. that Jules Aurèle Meissonnier achieved the highest extravagance of Rococo, bringing his period into disrepute, and obscuring the more refined contemporary work of Blondel and De Cuvilles.

Under the Empire, Roman and Greek styles prevailed; but the Sphinx was introduced as a reminder of the Egyptian Expedition, and winged figures of Liberty became common. There was much

emulation of bronze candelabra and lamps from Pompeii, and the reed-and-ribbon moulding from Roman medallions was made popular.

Of the Dutch and Flemish light fittings the special characteristic is great simplicity, but the work, while plain in character, was distinguished by good proportion and fineness of line. Its character deteriorated somewhat as a consequence of the introduction of lacquer. Hand-polished brasswork that had to be kept bright was necessarily kept clear of quirks and intricate ornamentation, but the permanently polished metal imposed no such restriction, and consequently there came a greater exuberance of ornamentation which deprived Dutch work of its original plainness of surface and general sturdiness of character.

In England, Mr. Birkett remarks, there has been no parallel to the deliberate and conscious creation in France of schools of furniture design. With the Restoration there came a desire to imitate the decoration with which the exiled monarch and his friends had become acquainted in the court of Louis XIV. William of Orange introduced another style, and Daniel Marot came over from France to re-decorate Hampton Court Palace, his influence directing attention very strongly towards French ornamentation. Thomas Chippendale's book, published in 1762, and quaintly called "The Gentleman and Cabinetmakers Director," being a large collection of the most elegant and useful designs of household furniture in the most fashionable taste," Mr. Birkett describes as "the widow's cruse from which many modern trade designers draw their inspirations." Obviously the influence of this book was instant, continuous, and powerful. It reveals various sources of inspiration, designs of the Louis XV. period predominating. J. Carter, a designer who enjoyed considerable vogue, pursued Empire lines; and then came the brothers Adam, who went back to greater simplicity, discarding alike Louis XV. extravagances and the Chinese tendencies of Chippendale. Our author refers rather scornfully to the free way in which the name of Adam is taken in vain: "The brothers Adam being fond of the tied ribbon, the festoon of husks, and the egg-and-dart moulding, our modern salesmen have no difficulty in labelling a fitting 'Adam,' provided only it possesses any of or all these details, however foreign the general design might be to anything those celebrated architects would have done."

To this interesting and outspoken booklet Messrs. Simplex Conduits, Ltd., append eight pages of illustrations of their own light-brackets, lamps, and chandeliers, designed in the styles of various periods. In each instance the model has been well chosen, and altogether the booklet affords further convincing proof that the designers of electric-light fittings are doing splendid work in promoting, by precept and example, the general standard of taste. We understand that the booklet will be supplied free to architects.

### *Downdraught Prevention Pots.*

Messrs. J. H. Sankey and Son, Ltd., Essex Wharf, Canning Town, E., have issued two elegant little booklets, in one of which ("Downdraught and Smoky Fireplaces"), by means of a series of illustrations, they show the adaptability of the Sankey "Perfect" pot to various types of architecture, the pot being fitted to Gothic, Jacobean, and Flemish buildings with equally happy results. The pot is made of clay, and has no small openings that could get choked with soot, and no working

parts to get out of order or cause nuisance from noise. The Sankey pot is now so well known that a detailed description is unnecessary. Its principle is a series of louvre rings which compose an effective portion of the pot are so arranged as to catch the wind and convert it into updraught. That it does its work is attested in the prevention of down-draught and smoky fireplaces there is all testimony, and that the pot, being simple and neat in design, does not detract from the appearance of any style of building upon which it is placed is convincingly demonstrated by the series of illustrations in the booklet.

In the second of the booklets, "Fireplace that Smokes," there is a series of cleverly drawn interior views, respectively, a sitting-room, a dining-room, and a bedroom, into the first two of which we are left to infer, the intrusion of smoke would destroy the atmosphere of comfort suggested by the elegant appointments. In the happy-looking inmates; while in the bedroom scene the inmate is very unhappy indeed, as he acts the part of the legend under the spell of the "You know what it is to have to sit in a window on a cold night to clear the air out of the room." The moral is that all the inconvenience, misery, and structural damage of smoky fireplaces—intrusion of smoke ruins quickly paper, ceilings, and curtains—are avoided by using the Sankey pot, which keeps the internal atmosphere clear in winter, the summer-time acts as a ventilator, the louvres in the pot being so ingeniously arranged as to catch every breath of wind and direct it upwards, causing updraught in the chimney. These booklets, by their attractive appearance, are a most interesting treatment of the subject, and put to effective use for the persuasion of clients.

### *Ironite Patent Waterproofing and Floor Topping.*

The Ironite Company, Limited, Thornely Mott and Vines, Victoria Street, S.W., managers, make it known that Ironite is a British-made and British-owned waterproofing manufactured by Messrs. Archibald Rick and Sons, Ltd., of West Bromwich.

Ironite will render the most porous concrete and brickwork absolutely waterproof against heavy water-pressure, and can be applied to existing buildings directly, any mixing with cement. It is a partially metallic powder, put up for use in tins, and requiring only to be mixed with water. Applied with a brush, it becomes incorporated with the cement or brick surface, and the work permanently waterproofed and entirely effective for the treatment of flat roofs, it is equally efficient as a material for repairing cracks in concrete. It can be applied direct to damp surfaces while they are actually wet, and on a cement surface can be Ironited in twenty-four hours, and painted, oiled, or cement-washed after it has dried. Its value as a waterproofing agent is due to the fact that when applied its particles oxidise, forming a mechanical and a chemical union with the concrete, brickwork, etc., the expanding and completely filling the voids into which they penetrate. The substance, similar in many respects to iron ore, is thus formed and is impervious to water, air, heat, cold, oils, and alkalis. Mr. Bertram Blount, the managing chemist, having tested Ironite



heads of water ranging up to a of 70 lb. per sq. in., and on con- icks, tiles, and stone reports that ng of this material penetrated well e surface, forming a strong and d with the bricks and blocks. He lso that in the case of a crack in ade of three parts building sand part cement it was possible with- owing the water from the bath to leakage by applying a coating of long the under side of the crack, her tests showed it to be possible rily together with Ironite two surfaces of a block made of rts building sand and one part the crack becoming perfectly t. Mr. Blount made several ertesting experiments, in each and ch the material was proved to be rooing agent of unquestionable

value of Ironite for damp-proof is shown in the record that a soft g brick sawn in two, with the two rfaces coated with Ironite and t contact, was kept continuously in : four months, and the upper half l perfectly drv whilst the lower was saturated, the Ironite forming perfect bond between the two

flooring is dense, compact, and ous. It is mixed with cement d for the floor topping, and, by f the chemical action which takes e particles of Ironite flooring not and and tightly seal the pores and s, but also bond the surrounding in much firmer adhesion than is ly obtained with Portland cement rtonite topping produces a floor ies being absolutely impenetrable -absorbent, will resist almost any power and tensile strain, per- heavy wear without sanding or and thus obviating entirely the dust that, especially in factories ehouses, are so injurious to health achinery. Neither water nor amages these floors, which permit gh washing without absorption of . Old floors can be easily with this material, which forms a union between old and new

## TECTS' WAR COMMITTEE.

Following appeal has been issued by itects' War Committee, and we d it to the most earnest considera- the profession:

Royal Institute of British Archi- eling it to be their duty in this emergency to arrange for such e action by the Architectural pro- as may be found to be desirable, ith the co-operation of members of rchitectural bodies, formed an ts' War Committee which is representative of the whole pro- n the United Kingdom. It is felt ontribution by the whole body of ts to the Prince of Wales's Relief ill not only secure a larger donation ble all to help, however small a y are able to subscribe, but that ation given in this way may e others to a like effort. The e will be glad to receive contri- to this fund. While, however, it important that the national fund e supported, the committee cannot o the fact that there is likely to be deal of temporary distress among ts. The Board of Trade returns

for the month of August show the immense diminution of trade already caused by the war, which cannot fail to have a serious effect on the work of our profession. The funds at the disposal of the Architects' Benevolent Society are quite inadequate to cope with such an emergency. The War Committee, therefore, hope that all architects who are in a position to do so will give the most generous support to the special fund intended mainly for the assistance of architects and for other matters arising from the war which may affect our profession. Donations should be sent to the Hon. Secretary, The Architects' War Committee, 9, Conduit Street, Regent Street, W. Cheques should be crossed "& Co."

## LICENTIATES AND THE NEW CHARTER.

We publish, at the request of Mr. F. Houlton Wrench, the following correspondence, which has passed between Mr. Francis A. Winder and the President of the R.I.B.A. with regard to the proposed new charter:

[Copy of Letter to the R.I.B.A.]

Corn Exchange Chambers,  
Wharf Street, Sheffield.

August 6, 1914.

The Secretary,

Royal Institute of British Architects,  
London.

Dear Sir,—May I ask what effect the present international crisis will have on the proceedings of the Institute with regard to the new Charter?

As you know, my colleague, Mr. Wrench, and I represent many hundred Licentiates who wish to protest against the Charter being granted in its present form, and in justice to them we should like to know the intentions of our governing body.

As an ex-Volunteer, it is probable that I may be called upon for service, and I understand that Mr. Wrench may be affected in the same manner.

Is it possible, therefore, for your Council to give an undertaking that the matter shall be so adjusted that time be guaranteed after the war for our appeal against the Charter?

May I also ask that your reply to this letter be framed in such a way that it may be published in the London papers and the architectural journals. It is very desirable that those who are supporting us know the reason for the suspension of action and the publication of this letter, and your reply thereto will save a great amount of correspondence.

Yours faithfully,

FRANCIS A. WINDER.

[Copy of the Institute's Reply.]

Royal Institute of British Architects,  
9, Conduit Street, Hanover Square,  
London, W.

August 10, 1914.

Dear Sir,—In reply to your letter of the 6th inst., you may take it for granted that the Council of the Institute will not be occupied with the consideration of the new Charter, or take any steps in connection with it, at the present time.

Yours faithfully,

ERNEST NEWTON.

President.

Francis Winder, Esq.

## THE WAR AND THE BUILDING TRADE.

A writer in the "Standard" contends that the existing state of affairs in the building trade is not justified by the present financial or commercial position. This view is to some extent supported by the observations of Mr. Henry Holloway, governing director of Holloway Brothers, Ltd., Victoria Wharf, Belvedere Road, London, who, in an interview, denied that there was any difficulty in buying building material.

"There has been a slight increase in lead," he said, "but that is now recovering. There has also been an increase in the price of timber from the Baltic ports, but these increases are not so serious as to justify owners withholding contracts.

"As far as the cost of building is concerned," added Mr. Holloway, "the war has not seriously affected it. At any rate, labour is plentiful and the advantages to be gained from a plentiful supply should more than compensate for any slight increase in the cost of materials. There is nothing from the point of view of cost to justify an owner from withholding contracts or shutting down existing work. The financial difficulty is far more serious. All building operations mean an expenditure of capital, and owners have to make arrangements to meet this expenditure. Speculative builders cannot proceed except when they are financed upon reasonable terms. Usually these builders get assistance from banks, insurance offices, friendly societies, or private capitalists. All these sources of financial assistance are practically closed down.

"The question now arises whether the Local Government Board, instead of advancing money through local authorities for building schemes, cannot be persuaded to extend assistance to firms of repute and to the owners of property to enable them to carry on the normal plan of development. The Government should have no difficulty in obtaining ample security. They might make loans by way of mortgage, and could readily obtain  $4\frac{1}{2}$  per cent., a rate which would give them a slight margin, sufficient to compensate for any loss that might be suffered in special cases. An advance of two-thirds on the value of the property, as is usual with ordinary trustees, would also give ample margin to cover losses, and meet the ordinary requirement of builders and building owners. By dealing with the Local Government Board direct building firms and owners could get to work much more quickly than when acting through local authorities.

"Certain people have building estates which they would be glad to push forward. If in various localities the Local Government Board would pick out a few substantial firms and finance them on the lines suggested, much useful work could be put in hand, and distress avoided in the winter.

"With regard to work that was commenced before the war, I will speak as a contractor as distinct from a speculator. This work is largely held back by the owners under the impression that it will be more costly to continue at the present time. This is quite a mistake. Let things go forward as usual, and it will be found in the end that not only has there been no loss, but that new buildings are opportunely ready for the serious work that peace will bring."

[Mr. Holloway's suggestion of Government loans to builders has been anticipated in our editorial columns this week. See also the first item on the next page.]



## LOANS FOR BUILDING FACTORIES.

Mr. B. Scruby, Featherstone Buildings, High Holborn, W.C., has the following letter in the daily Press: "I am trying to induce the Government to lend 75 per cent. on the actual cost of building factories in this country, spreading the repayments over a number of years, at a reasonable rate of interest. This would be the means of a large number of firms starting manufacturing in this country, and the employment at good wages to our own workmen. Where it is easy to procure money on mortgage for cottages and house property from solicitors and building societies, it is very difficult to borrow money for the purpose of building factories.

"The Government lend money for building cottages at a very low rate of interest, spreading the repayments over a number of years, and I contend therefore that they should for the benefit of the country be prepared to offer similar terms to anybody wishing to manufacture in this country. The Government would be well secured by only lending 75 per cent. on the actual cost of building as they would hold the deeds of the freehold land, and the valuable machinery which would be erected in nearly every factory would be held as collateral security, and the standing of the firm.

"I have been approached by several clients who require factories built at the present time on these lines, but cannot find the money for the purpose, but if the Government can be induced to fall in with my scheme it will be the means of a large number of factories being built in this country which will lead to a large amount of foreign money being invested over here.

"I shall be pleased for any assistance that you can give me to help me with this scheme."

On the attitude of the banks towards builders, see a paragraph on p. xvii.

## NEWS ITEMS.

*Southampton University College as a Hospital.*

Hartley University College, Highfield, a fine new block which was about to be occupied for educational purposes, has been patriotically offered to the War Office as an emergency hospital or convalescent home.

*Public Baths, Walton, Suffolk.*

Small new public baths erected at a cost of £400 by Felixstowe Urban District Council at Walton have been erected from plans prepared by Mr. H. Clegg, A.M.I.C.E., the council's surveyor. The builders are Messrs. Parker Bros.

*New Parish Church, Kirkintilloch.*

Kirkintilloch's new parish church, which has just been dedicated, is of red sandstone, and occupies a frontage to Cowgate of 144 ft., with accommodation for 1,212 sitters. It has been built from the designs of Messrs. Clark and Bell, of Glasgow, who have adopted a fourteenth-century style. The builders are Messrs. Alex. Muir and Sons, and the estimated cost was £14,000.

*Trade Opportunities in Belgium.*

British manufacturers will be glad to learn that an excellent opportunity is now presented for the development of trade with Belgium as a result of the exclusion of German goods from that country. Full information, we are informed, will be sup-

plied free of charge by M. Emile Pauwaert, Ghent, Belgium. Catalogues and samples which may be sent will be distributed amongst interested parties.

*Schemes for Housing: Need for Simplifying Procedure.*

At a meeting of the Scarborough Streets and Sanitary Committee it was decided to send a resolution to the Prime Minister and other members of the Government pointing out that schemes for housing were very seriously delayed by the costly and lengthy proceedings involved in the acquisition of land, and asking them to introduce legislation at an early stage to cheapen and simplify these proceedings.

*A Garden City Syndicate for Derby.*

It is announced that a number of professional and business men have formed a syndicate for the purpose of developing land in or near Derby on garden city and co-partnership lines. The syndicate is not a money-making concern, as the dividend is to be limited to 5 per cent. It hopes to provide a good class of dwelling for working people at rents ranging from 5s. to 8s. 6d. per week. It is proposed to lay out immediately a site of ten acres and a further similar area will shortly be acquired.

*"Heroes' Homes."*

Mr. Herbert H. Brown, F.R.I.B.A., of Manchester, writes: The various local authorities are wondering how best to use the large sums of money collected for relief. Why not at once commence to build "homes of rest," say with pairs of single storey cottages, or in groups of fours, set out around a grass sward, and many of them having a vegetable patch of garden at the rear, similar to the few almshouses which from time to time our wealthy landowners have built, but call them "heroes' homes," where our soldier and sailor heroes who come back maimed for life may live as "pals" in serene peace and happiness instead of going into our workhouses? The cost of maintenance need not be more than that of a workhouse, yet such a different spirit would be there. Would a piece of Heaton Park or a part of our other open spaces be missed for the purpose?

*Free Sites for Factories.*

Messrs. Waite and Waite, land and estate agents, 15, Great Castle Street, Oxford Circus, W., write as follows: "At the present time there is a great deal being said about the advisability of opening up factories in this country for the manufacture of goods hitherto imported from abroad, but there are, of course, a great many difficulties in the way of our manufacturers, not the least of which is the want of capital. Recognising this and wishing to encourage British enterprise a client of ours (a large landowner) has communicated to us his intention of giving away a number of freehold sites to firms willing to erect factories thereon. As the land he refers to adjoins a main line G.W. Railway station, and is only about an hour from London, we think some of your readers may be interested to hear of his generous offer."

*Portland Cement Manufacture in Queensland.*

It is announced that Portland cement is now being made at Darra, ten miles from Brisbane, on the southern main line of railway. About 14,000 to 15,000 tons of coal will be consumed in the manufacture of 30,000 tons of cement (this being the suggested present capacity of the works). The consumption of Queensland cement during 1913 was 36,000 tons. The wholesale net price of cement on wharf in Bris-

bane is 74s. 8d. per ton; the lowest during the past year was 68s. 3d. The cost of the company's cement delivered to Brisbane is estimated at 40s. 1d. The whole of the Portland cement consumed in Queensland is imported, about 90 per cent. of the total from Europe and the remainder from New South Wales, Victoria, and New Zealand. The demand for cement for constructive works of all kinds is increasing so rapidly in Australia that there is frequently a shortage of supply, and as all facilities for its manufacture are to be found in close proximity to the coast, and there is the protection of a high tariff and substantial freights, the establishment of the industry in Queensland shows promise.

Further News Items will be found on page xvii.

## COMPETITIONS.

*Council School, Aberdare.*

The Education Committee of the Aberdare Urban District Council invite architects to apply for the appointment in connection with the proposed Glander School, Gadlys, Aberdare, which is to accommodate from 400 to 600 children. Applicants must send in their terms for the work, which include: (a) The preparation of a preliminary and final plans for the approval of the Education Committee of Education, and Local Government Board, and of all official forms in connection therewith. (b) The preparation of necessary working drawings, specifications, bills of quantities, etc. (c) The supply of all necessary copies of drawings, specifications, etc., to the Education Committee, contractor, and works. (d) The supervision of the construction of the buildings. Tenders to be submitted by October 5 to T. Botting, District Education Officer, Education Offices, Aberdare.

[Aberdare Council are probably of opinion that to tender for work is an unprofitable practice. Being informed on this point they will doubtless either institute a competition or select an architect to be paid at the recognised professional rates.—ED. A. AND B. J.]

*Receiving Home for Children, Gillingham.*

In the above competition the design submitted by Mr. T. Waddingham has been selected by the Board of Guardians. Waddingham has accordingly been appointed to carry out the work.

## THE CENTRAL SCHOOL OF ARTS AND CRAFTS.

We have received from the principal of the L.C.C. Central School of Arts and Crafts a copy of the prospectus of the course for the session 1914-15, which was published on Monday last. Evening classes of special interest to architectural students are held in design, drawing, modelling, wood carving, and building construction. The course includes a course of history lectures on "The Growth of the House" (essential for all students of elementary design), and there are lectures on Saturday mornings and afternoons at the South Kensington Museum for those who wish to study (measuring and drawing) architecture, sculpture, and metalwork, etc. Further details may be had by calling to see the Principal, School of Arts and Crafts, South Kensington, Row, London, W.C.



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## NEWS ITEMS.

Continued from page 214.

### Convenience, etc., Barrow.

Barrow Town Council have plans for a dwelling house in Park for J. J. Mullinder, and for six detached houses in Roose Road, for Barnett. The Council have permission to borrow £650 for the construction of an underground conduit in Cornwallis Street.

### Reinforced Concrete Trenches.

One of the defences which the Germans prepared in the neighbourhood of Brussels and Louvain, the content of an evening newspaper says: "The trenches are throughout characterised by thoroughness. According to the information I have obtained the trenches, and other works are all of reinforced concrete, and they are well furnished with machine guns, field pieces, and of considerable calibre, rendering attack a very serious proposition."

### Improvements at New York.

Uncertainties of the situation caused by the European War have led to a temporary stoppage in the execution of plans for improvements already matured by the American Dock Company. The approval of the New York State officials at last has been received by the company for application for a water grant extending the pierhead line which was granted by the Federal Government in September. This will permit of piers being built along the east Staten Island between St. George

and Stapleton. The complete plans for the pier extension at the American Dock Terminal have been approved by the Dock Department, but owing to the present uncertainties, due to the European war, the contracts for the work have not been awarded on the bids offered. These plans include the erection of two seven-storey warehouses providing the terminal with an additional storage capacity of about 1,000,000 cubic feet. The contract for this construction has also been held up on account of the war.

### The Supply of Zinc.

Some apprehension has been caused by the step taken by the Government in assuming control of the spelter supplies. The war has cut off the bulk of the supply, which comes from Germany and Belgium, and the price has greatly increased within a comparatively short time. Spelter is used to an appreciable extent in making cart-ridges, small and large, and it is explained that the Government intervention is only intended to defeat a cornering movement. No fear is entertained of munition makers running short. In fact, supplies for general brass manufacturers have been issued through official channels. Flintshire and Cornwall have small deposits of the ore.

### Banks' Attitude Towards Builders.

Builders, in common with the representatives of other extensive industries, are anxious lest the Chancellor of the Exchequer should be influenced by the recent appeals for an extension of the moratorium. Recently, when replying to a deputation from the Association of Municipal Corporations, Mr. Lloyd George hinted guardedly

at the advisability of entering upon relief works. "It is very much better," said Mr. Lloyd George, "that you should get the people to work on things that are normal if you can; our trade is not going." The plaint of the building trade is that in this laudable desire to accumulate gold many extensive industries that might have remained normal have become abnormal in their conditions. The building trade is amongst them. The immediate difficulty lies with the attitude of the banks towards the building industry, and financial stringency amongst those for whom the buildings are being constructed. The building trade requires heavy weekly wage bills. If normal conditions are to be reached a means must be found for obtaining the money.

### Restoration of Saltcoats Harbour.

A scheme for the restoration of Saltcoats Harbour is being carried through by Saltcoats Town Council. The harbour and lands were recently acquired by the council from Captain Cuninghame of Auchendarvie, and they have now begun work on the existing structure. Between Quay Street and the old Custom House the sea wall has been brought to a uniform level and cemented. The reconstruction of the new quay has also been started, a substantial concrete wall having been built to form the north-west side of the new quay, the cope being 8 ft. above high water level. Along the sea wall an elevated footpath will be constructed, protected on the outer side by the wall and on the inside with an iron railing. At the south end of the new quay there will be a circular view tower. The plans have been prepared by Messrs. Babbie, Shaw, and Morton, Glasgow.



## PUBLISHER'S ANNOUNCEMENT.

THE question of the cost of Advertising is governed entirely by the circulation of a publication. The prices for small Advertisements enumerated below are framed upon the lowest possible basis in order to allow the use of the columns of the Journal for "Wants," &c., at a figure well within the reach of everyone.

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4 lines (about 28 words) 1s. 6d.; 3 insertions, 3s.

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**ASSISTANT** (young) seeks London situation; three years' office experience; neat and accurate draughtsman; working drawings, surveys, etc.; good construction and figures, perspective; salary 20s.—R. T. Quinn, 70, Grosvenor Road, Westminster. 8982

**BRICKLAYER**, 25 years, experienced in brick-work, new, alterations, alterations, pointing, plastering, roofs, drains, tile fixing, stoves, furnace work, and general house repairs; would suit builder or estate.—E. H., 106, Stanstead Road, Forest Hill, S.E. 8983

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**GENERAL** Foreman seeks re-engagement; new, alterations, shoring, etc.; good manager of men; careful with materials; carpenter and joiner; age 38; good references.—Foreman, 19, Myrtle Gardens, Hanwell, W. 8974

**HOME** Work.—Experienced Assistant, willing to assist on plans, details, specifications, or make plans from rough sketches on reasonable terms.—Templeman, 26, Aristotle Road, Clapham, S.W.

**MANAGER**, Builder and Decorator's; thoroughly practical in every branch, and competent for entire responsibility; long experience; good accountant; plans, specification, quantity surveying, and keen estimator; sharp manager of men inside and out; town or country; undeniable reference; life abstainer.—Manager, 83, Station Road, Hampton-on-Thames, Middlesex.

**WORKING** Foreman of Painters; good paper-hanger; West End experience; age 40; life abstainer; good references; last two and a half years, seven previous.—Address, Parrish, 34, Weybridge Street, Battersea Park, S.W. 8960

### Appointments Vacant.

6d. per line.

**ARCHITECT** requires a competent Junior Assistant.—Apply by letter, stating age, experience, and salary required.—Bruce J. Capell, Broad Street Avenue, London, E.C.

**CLERK** of Works wanted to superintend the erection of a Sanatorium for Consumptives, costing about £15,000, for the Devon County Council.—Apply, by letter only, stating age, experience, and salary required to Ellis, Son and Bowden, F.S.I., Surveyors and Architects, Bedford Chambers, Exeter. 8975

**WANTED**, temporary Architectural Assistants and Quantity Surveyors' Assistants.—Application on forms to be obtained from Superintending Architect, London County Council, County Hall, S.W.

**WANTED**, first-class Foreman, take charge joiner's shop, manufacturing for trade only; must be good estimator; able turn out all classes work.—State wages and previous experience to F. W., "Times and Mirror," Bristol. 8978

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**ARCHITECTS** and Surveyors.—Partnerships—Successions—or Amalgamations. For introductions to gentlemen with experience and capital available to purchase, or for particulars of partnerships and practices for sale, town or country, apply to Goodchilds, 29, Southampton Buildings, Chancery Lane, or 329, High Holborn, W.C. The recognised Partnership Agents for the Profession. Mortgages negotiated.

**SECOND-HAND** Optical Mart For the Purchase and Sale of **LEVELS, THEODOLITES, DRAWING INSTRS.**—Clarkson's, 338, High Holborn, London, W.C. (Opposite Gray's Inn Road).

**SECOND-HAND** Gymnasium.—A portable building wanted for private school gymnasium at Seaford, Sussex; size about 40 ft. by 20 ft.; second-hand would do if in good condition; send particulars.—R. H. Halls, Architect, Lewes. 8956

### Miscellaneous—continued.

**BOOKS.**—Books on Building Trades, Engineering, Educational, Literary, Technical, other subjects; second-hand at half new at 25 per cent. discount; catalogues state wants; books sent on approval bought; best prices given.—W. and J. 121-123, Charing Cross Road, London, W.

**TYPEWRITING;** architects' and specifications and reports a speciality; monials copied; send for price list; cheap, and accurate.—Address, "Typing Office, 65, Marsham Street, Westminster

### Contracts Open.

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**BRACEBRIDGE ASYLUM, LINCOLN.** The Committee of Visitors are prepared to receive Tenders for the enlargement above Asylum.

Builders desirous of Tendering are to send their names on or before 8.25 to Mr. Frederick Parker, Architect, Square, Boston.

Bills of Quantities and Forms of Tender to be obtained on payment of £5.

The sum so paid will be returned to persons who send in a bona-fide Tender conforming with the conditions specified.

The Committee of Visitors do not bind themselves to accept the lowest or any Tender.

The acceptance of any Tender is subject to the approval of the Lunacy Authority. Tenders must be delivered before 10 o'clock a.m. on Friday, October 23, dressed to the undersigned and "Tender for Bracebridge Asylum ment."

HAROLD E. PAGE,

Clerk to the

5 and 6, Bank Street, Lincoln.

September 7, 1914.

### NUNEATON UNION.

**TO BUILDERS AND CONTRACTORS.** The Guardians of Nuneaton Union TENDERS for the Erection of a Home.

Persons desirous of tendering must send their names to Mr. E. E. Shepherd, Architect, Nuneaton, not later than 5 p.m.

Plans and specifications can be obtained on payment of £1 1s. (which will be returned on receipt of bona-fide tender) application to the Architect.

Sealed tenders, endorsed, "Tendering Children's Home," to be sent to the Architect before October 6 next, and such tenders to be opened on October 7 next.

The Guardians do not bind themselves to accept the lowest or any tender.

By order,

C. BLAKEWAY

Nuneaton, August 19, 1914.

### EDMONTON UNION.

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The Guardians invite TENDERS for PAINTING at the Cha Schools, Enfield.

Forms of Contract can be seen, and of specifications, conditions of Contract the forms on which Tenders must be obtained, on application to the Mr. J. C. S. MUMMERY, 13, Fitzroy Street, London, W.

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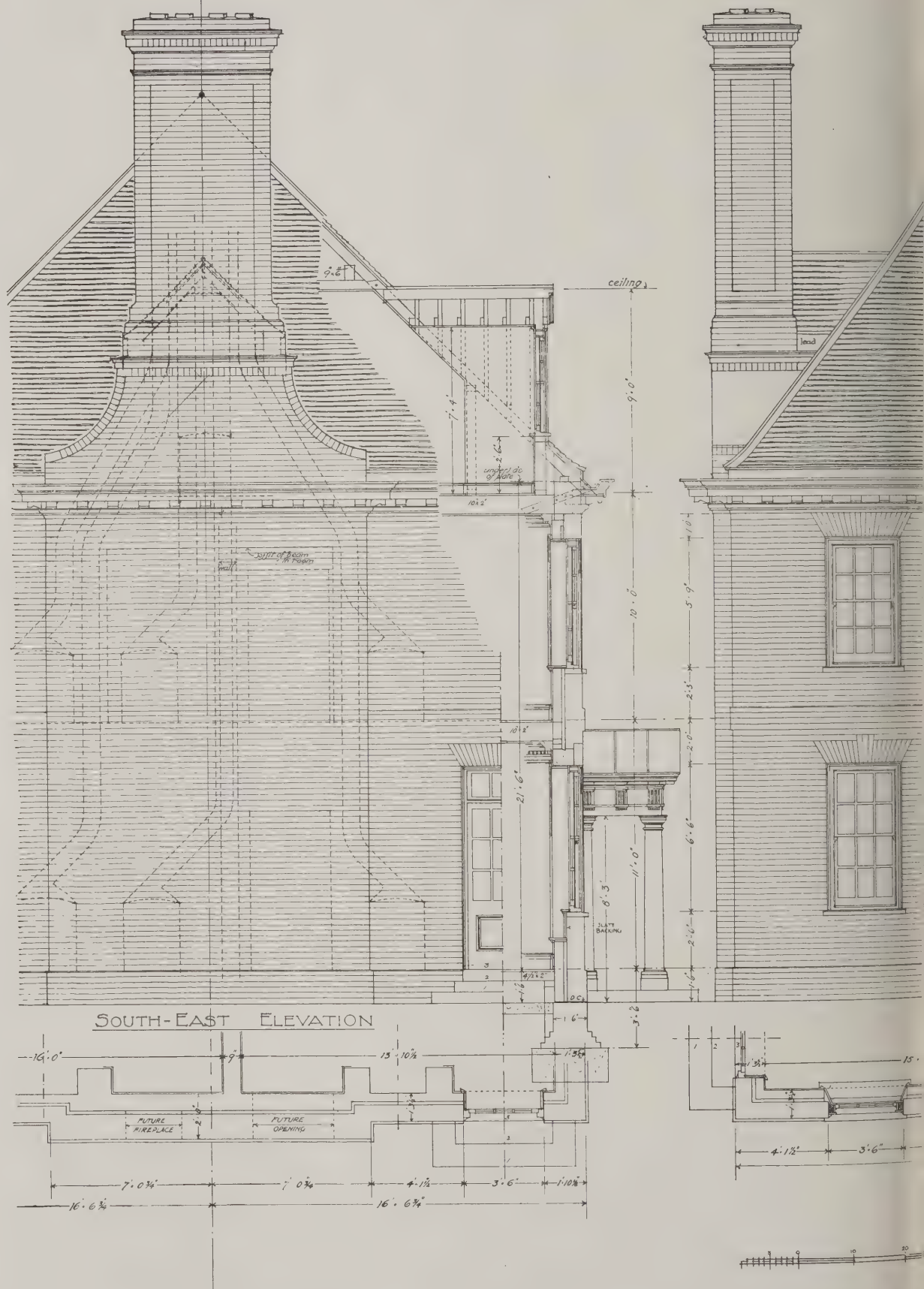
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NINETEENTH-CENTURY FRENCH ARCHITECTURE. VIII.—THE OPERA HOUSE, PARIS: DETAIL OF REAR ELEVATION.  
CHARLES GARNIER, ARCHITECT.









MODERN AMERICAN ARCHITECTURE. XI.—THE MAINE MEMORIAL, NEW YORK.

H. VAN BUREN MAGONIGLE, ARCHITECT. ATTILIO PICCIRILLI, SCULPTOR.









MODERN AMERICAN ARCHITECTURE. XII.—THE UNION BANK BUILDING, PITTSBURGH, PA.

MacCLURE AND SPAHR, ARCHITECTS.









SMALL HOUSES OF THE LATE GEORGIAN PERIOD. XXVII.—HOUSE AT BECKENHAM, KENT.









MODERN DOMESTIC ARCHITECTURE. XXXVII.—WEMYSS HALL. CUPAR, FIFESHIRE.

SIR ROBERT LORIMER, A.R.S.A., F.R.I.B.A., ARCHITECT.





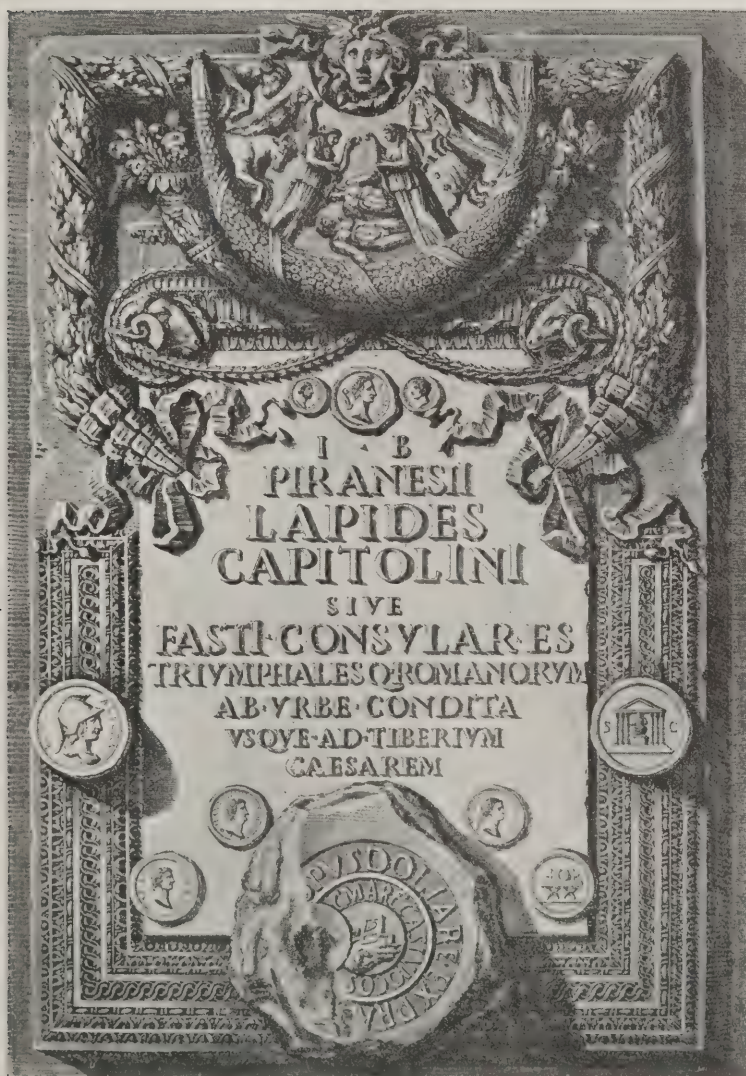


# THE ARCHITECTS' & BUILDERS' JOURNAL.

Wednesday, September 30, 1914.

Volume XL. No. 1030.

No. 104.



(From Piranesi.)



# THE ARCHITECTS' & BUILDERS' JOURNAL.

SEPTEMBER 30, 1914.

CAXTON HOUSE, WESTMINSTER.

VOLUME 40. No. 103.

## EDITORIAL.

IN commenting, in our issue of September 16, on the Chancellor of the Exchequer's advice to a deputation from the Association of Municipal Corporations, when he said, "I do not think this is the time to embark in great municipal enterprises which have no reference to distress," we expressed the fear that his words would be forced to bear a meaning that we hoped was not intended. As a corollary, we now find "An Architect" writing to the daily Press to complain that "at a time when the Government are urging private employers to continue their business as usual and employ as many men as possible, their own inspectors are impressing upon public bodies not at present to proceed with work that the Local Government Board may have approved of, and also are withholding their consent to proposed works until a later date." As it cannot be supposed that these inspectors are acting on their own initiative, we are reluctantly forced to the conclusion that the Local Government Board are interpreting the Chancellor's speech in what we regard as the narrowest and worst possible sense.

At least one local authority has been swift to take up the cue. At a meeting of the Housing and Town Planning Committee of Dundee Town Council, the Treasurer said it must be obvious to the committee, "especially in the light of the warning given by the Chancellor of the Exchequer, that during the continuance of the war and the extraordinary drain on the finances of the country, it would be little less than folly, whatever be the merits of such a scheme, for them to embark on a scheme of such dimensions just now." It is understood, however, that in Dundee the housing question has become acute, and on its own merits there would be at least as much "folly" in abandoning it as in carrying it out. That consideration, however, is apart from, or rather is an extension of, the principles involved. As we have said before, and as "An Architect" emphasises in the passage from his letter which we have quoted above, it is folly for the Government to preach one thing and practise another—to impress upon private owners the desirability of enterprise in building, and to discourage similar activities in municipal authorities. Example is better than precept.

We still find it impossible to believe that the Chancellor foresaw such consequences of his speech as the holding-up of housing schemes. He spoke of "great municipal enterprises," and it is only with considerable difficulty that the phrase can be stretched to include works of necessity, such as housing schemes. That, however, is obviously the effect it is having, and it is incumbent upon the Chancellor and the President of the Local Government Board to take immediate steps to counteract the serious misunderstanding to which their utterances have given rise. These

Ministers, over-burdened as they doubtless are with work, could not have foreseen that their unqualified admonitions with regard to public work would lead to wholesale unemployment, and the ultimate expense on mere charity of money that should be spent on productive labour.

A letter from the hon. secretary of the Architects' War Committee which we are glad to include among our correspondence this week gives more or less of a shape to the Committee's offers of help to architects joining His Majesty's forces. Roughly speaking, much or as little help as may be needed will be given from taking complete charge of an office down to "giving only general advice as and when required."

If only the excellent promise of the theory embodied in the scheme is realised in the practice, the Architects' War Committee will have solved a problem of considerable national importance, and will have set an example if generally followed, would do the State a signal service; for it may be reasonably supposed that there are many thousands of professional and commercial men who, while eager to join the colours, have been hitherto held back by business considerations. And surely it is sufficient that a man should risk his life for his country. It is good neither for him nor for the country that he should neglect or destroy his professional or business career, and, whether or not he is willing to make a sacrifice, it is unfair and unwise to require it. For architects this problem is solved, or at least a reasonable solution of it is offered, and if, within a reasonable time, the Architects' War Committee are in a position to announce the success of their scheme, it will be less likely to be adopted in other directions. In these times of scientific business organisation, it should not be difficult to form advisory boards that could do good of a similar character for the entire business community; and such boards should ultimately be able to formulate, from the data drawn from enlarged opportunities of observation and experience, superior business methods and increased efficiency. Chamber of commerce have here an excellent chance to show their usefulness.

There is no need to point out the further important advantage of the Committee's scheme that it not only prevents work from coming to a standstill, but not only puts it into the hands of some who, disqualified from direct work with the forces, may be glad to direct their energies through other channels. "The extent and nature of the generosity" is, it appears, a matter for ascertainment. It may be presumed that where the work happens to be remunerative they will not be expected to do nothing; and if this conjecture is well founded, the scheme will be beneficial in mitigating the pro-



employment among architectural assistants and whom the war has deprived of their ordinary utilities of usefulness. Mr. Alan Potter, indeed, in position with soldierly bluntness: "All assistants eligible for Kitchener's army should state to join at once, leaving their berths to those on age or health cannot be accepted, and who otherwise be out of work." Altogether, this strikes one as being distinctly good in its inception its practical success—of which we shall be glad to hear—depends very largely on circumstances that appear to be rather beyond the control of architects, who, moreover, cannot be charged with haste in pressing forward with it. We should know that they are backing it up by personal and in every possible way, lest it speedily the ineffectual character of a mere "scrap of

So excellent an idea deserves the fullest that can be got from careful cultivation.

the relevant addendum to the War Committee's the reminder that those who intend to join the will find it advantageous to apply through the Architectural Association. Among the advantages doubtless included the comfort of comradeship. Not that this is indubitably a great gain; our architects might be all the better for roughing time among all sorts and conditions of men, and their experiences and, perhaps, their vocabulary. On the other hand, it would be exhilarating to find on the front that an A.A. corps had brilliantly held Louvain and Reims. The A.A. president number of members have joined the Royal Engineers, in which excellent corps they may reason-ably expect to turn their professional training to some use, and incidentally to revise their technical knowledge in the light of sterner realities than civilian life can supply.

letter, however, is of purely domestic character, and the profession is anxiously awaiting the Institute on such wider issues as the revised contract on which we understand it to be based, and the important question of prices of materials, as to which it has hitherto made no sign. Speed and celerity being of vital importance in a time like the present, we would again urge the Institute to abate somewhat of the sedateness which comes so admirably in times of peace, but is in a time of war worse than worthless. That civil engineer some months ago, charged the Institute with "inefficiency" now stands revealed as a super-satirist.

the question of prices, there is but little to add to the further interesting letter from Mr. Quennell, which we print in the present issue. Most architects, we are sure, will share our regret that the Institute has not yet been fit to act upon Mr. Quennell's suggestion of setting up a Prices Committee to co-operate with the General Chamber of Trade in doing everything possible to prevent excessive inflation and incidentally to restore public confidence. As this suggestion was made as early as January 12, the Institute has let slip an opportunity for which, if it had been promptly seized and speedily applied, might by this time have altered for the better the whole tone of the building industry. The Institute's authoritative assurance that the public interest in this matter were under firm control would have counteracted the damaging impression created by the break of war that a building contract was a hazardous adventure fraught with limitless liabilities. It is now quite well that it is nothing of the sort, but the Institute has done but little for the diffusion of useful knowledge. It should make haste to repair its omission; nor should otiose dignity deter it from making representations to the Government on this and

certain other matters concerning the welfare of the profession it represents and the national services that architects are qualified to render.

Complaint is still being made that large stocks of timber are virtually interned because the holders are counting upon exorbitant profits. As J. R. McCulloch, the economist, used to insist, "If there be one article more than another with which it is of primary importance that a great commercial and manufacturing nation like England should be abundantly supplied on the lowest terms, that article is timber." It is therefore in the highest degree unpatriotic to withhold it from consumption with the sole object of making large private fortunes at the expense of public adversity. The temptation to "get rich quick" is very strong, and, in the public interest, it must be strongly counteracted. Any specific instances of such conduct should be immediately brought to the attention of the Government, who, we understand, will be prepared to deal with them. This, as we have said before, is one of the instances in which the War Committee, acting with the National Federation of Building Trades Employers and the Institute of Builders and some other organisations, could render the Government and the trade of the country very valuable help. But the whole question of prices should be dealt with promptly and firmly, with the determination to suppress at once and effectually every attempt to take a mean advantage of the situation. What has been done with respect to foodstuffs can be done with the means of acquiring the wherewithal to buy them.

The expert contributor of our "Electrical Notes" reverts again this week to the opportune and highly important subject of the necessity for superseding German supplies; and another member of our staff contributes an interesting account of a special visit to works at Hammersmith, where it was effectually demonstrated that in this as in so many other directions Great Britain can make herself independent of the alien manufacturer. A general tendency to adopt this course must result in the near future in the erection throughout the country of an enormous number of factories for the manufacture of articles hitherto extensively and quite unnecessarily imported. It would appear that the chief reason for past neglect of these opportunities is to be traced to the extraordinary pushfulness of the aliens. In particular, it would appear that the Germans have systematically invaded us with the deliberate object of undermining our commercial supremacy, and it has become a patriotic duty to build factories with the same object as we should erect fortifications—to keep out the Germans, whose commercial activities are inextricably involved with their national and political aspirations. These it is our plain duty to check by every means in our power, as well in the field of industry as in the theatre of war. With characteristic astuteness and thoroughness, the Germans, it is now evident, have used the Press of all countries to enormous advantage in formally or informally advertising their wares. They realise thoroughly the folly of hiding one's light under a bushel, and this is a matter in which British manufacturers have hitherto fallen short of the native courage. They have lost much ground both to Germany and America through failure to avail themselves more adequately of the means of publicity upon which their foreign rivals have been so quick to seize.

By the retirement of Mr. Oldrieve from the position of Principal Architect for Scotland to His Majesty's Office of Works the State loses a valuable servant, who for ten years—he was appointed in 1904—had filled admirably the position he has just resigned. The works he has executed during that period would make



a long list. Among the many post offices he has built are the new Parcel Post and Telephone building at Glasgow, which cost £75,000, and the extensions to the chief offices in Edinburgh and Glasgow, which have cost £66,000 and £70,000 respectively. In Edinburgh he has carried out extensions to the Law Courts and reconstructions at the Royal Scottish Academy and National Gallery, while his extension of the Royal Scottish Museum is still proceeding. In his works of restoration at Holyrood Palace, at the castles of Edinburgh and Stirling, at St. Andrew's and Elgin Cathedrals, and elsewhere, Mr. Oldrieve has revealed sure scholarship and a delicate touch, and very fittingly he was appointed, in 1908, a member of the Royal Commission on Ancient Monuments, while in 1912 he was elected a vice-president of the Society of Antiquaries of Scotland, and in June last an honorary member of the Royal Scottish Academy. He is going into private practice in Edinburgh.

### HERE AND THERE.

**A**MID the roar of cannon and the rush of devouring flame, the glory that was Reims has passed away during the past week, and soon we shall see the photographic record, showing us the bare walls of a Gothic shrine, preserving outside, perhaps, a semblance of its former self, but a very charnel-house within. Hence, as others, too, must feel, those easy disclaimers of the German official are no comfort to us; they are but the apologetics of men who must attempt somehow to put forward a plausible case. It was the same with Louvain. After the whole world had been stirred by the wanton deed, the official must needs visit the scene and tell us that, after all, a great deal of stir had been made over what was really not so dreadful. Had not the Hôtel de Ville been saved?—the good German soldiers, indeed, had blown up buildings around it to stem the enveloping flame, and had even played fire-hoses on the stonework to keep it from spalling with the heat. And so the fretted wonder had been preserved intact for us. In truth, there was nothing to disturb the good German conscience. Only a sixth or so of Louvain had been destroyed, and if the Church of St. Pierre was included in the area, no great harm had been done, for the building could be restored with little difficulty. Of course, the University library had gone; that was a pity, but it could not have been helped; and, after all, so much else was left that Louvain might even congratulate itself on having suffered so lightly for the acts brought about by its own civilians. And so the tale proceeds. Visé had to be made an example of, and military necessity required that Termonde should be battered out of recognition.

It is all excellently well sounding, as are the German reasons for destroying a thirteenth-century cathedral. Heine gave the cue long ago, when he foretold that the Huns would again traverse the lands and, as true worshippers of Thor, hammer to bits the Gothic cathedrals. But the pitiful truth is that all these things cannot be set up again as the plausible German official assures the world. The mediæval artist has no fellow at the present day, and when you have destroyed his work, when the old glass has been shattered, when the sculptured saints have been scorched and mutilated, when the carved beams, the screen, the stalls, remain but a heap of charred woodwork on the sanctuary floor, you cannot set about forthwith and recreate them: even German efficiency cannot do that. Such work once gone is gone for ever, or until another race of rare craftsmen come with another Age of Faith. It is well to remember also that in addition to the form itself there is the glamour of age which envelops it, an element which Time alone can supply. As Ruskin says in one of his glowing passages: "The greatest

glory of a building is not in its stones, nor in its age. Its glory is in its Age, in its lasting witness to men, in its quiet contrast with the transitional character of all things; in the strength which, through the changes of seasons and times, and the decline and birth of dynasties, and the changing of the face of the land and the limits of the sea, maintains its sculptural shapeliness for a time insuperable, connects for and following ages with each other, and half constitutes the identity as it concentrates the sympathies of nations."

Speaking of Reims, I take note of a peculiar state of affairs. The proper person, wishful to say the right thing, will not venture on the pronunciation of the name. He came to our early minds with the story of Jackdaw. To him it must be rendered in the French—a rather nasal "Rance." Yet "Reams" has no English precedent. We speak of "Paris," "Paree," and no point is raised when the French comes to "Londres." Over Calais we are divided in the Shakespearean writ the word sounds an "H." And if "Reams," why not "Aymé"? There is a railway station of that short-sounding name in Dublin, and an Anglicisation of "Amiens" warranted at least by precedent, though, in the custom, it would be a bold man who would say he had seen "Aymeans" Cathedral. Mr. A. J. B. the other day, in his Guildhall speech, spoke of "Louvain," carrying on the French pronunciation. Louvain in English, however, may well be accepted as proper. But, as I have said, it is all very perplexing. There is no regular rule to guide us; it is a matter of what custom affects; else, saying Paris in full French we might be sure that "Broojies" would be the title for that fascinating old town in Belgium. So far, has been preserved inviolate from the German.

My eye has caught a most peculiar feature of the plate of the back of the Paris Opera House which was published in this Journal last week. Out of the work on the right-hand pier grows a leafy branch, a queer-looking object in such a place. I refer to it. They will not perceive it at once, but it is there. Perchance it is a 2-ft. rule left by the builder which has blossomed like Aaron's rod, but likely a pigeon dropped a seed in a cleft of the stone and Nature has done the rest.

From the correspondence columns it would appear that there is considerable divergence of opinion as to the best means of "brightening" the sessional meetings of the architectural societies. One reader expresses himself strongly against any such invidious expedient, preferring, presumably, the humdrum progress of papers to which we have become accustomed. On my own part I would wish a livelier state of affairs, and my experience in the neighbourhood of Regent Street, Westminster, and Bloomsbury having convinced me that there is plenty of scope for improvement, I do not hanker after a kinema entertainment—though so far as the elucidation of building processes is concerned, the moving picture is worth a page of description—but there is good reason to prefer the former. There should be another guiding motto than the following: "Come, let us reason together, so that a great deal of talking may be done, and much may be wasted, and practically nothing accomplished." This is a motto which has been observed with distinct thoroughness at all the congresses I have ever attended, and though I would not impute to individual architectural societies that their syllabuses are calculated to reduce inoffensive members to an equal state of boredom and inertia, there is unhappily no gain in the fact that sessional meetings are for the most part particularly dull affairs.



## BUILDING CONTRACTS: A CLAUSE TO GOVERN WAR RISKS.

ent issues we have published a number of valuable contributions dealing with the difficulties in the way of building enterprise which have arisen since the war. The whole matter circles around the rise of prices, and the state of uncertainty which has been created in the minds of building owners as to the possibility or expediency of embarking on protracted undertakings at the present time. It is evident that this condition of uncertainty should be removed, and we have considered it to be of service to publish some definite proposals framed with the object of putting things on a satisfactory basis. Mr. Quennell has already furnished us with some valuable material in connection, and out of his contributions a lively discussion has arisen, as might be expected in a case of the present. We have now received from him the following additional comment on points raised by other contributors. These are of extreme importance at this time. Incidentally, Mr. Quennell criticises the proposals of the Architects' War Committee, a body to which we agree, has not done what was expected of it in the present crisis. Mr. Quennell says:—

—With reference to Mr. Cresswell's letter in the last issue, *re* the contract Mr. Harrison Townsend has arranged with Messrs. F. and H. F. Higgs, the conditions of which you published in your issue of the 11th inst.: Mr. Cresswell raises the point as to why any increase of price arises from the state of the market from fluctuations only. The answer to that is that the builders, under the contract, before making any increases of cost, have to give the clients notice in writing and *proof*, and the contract is terminated if such increases go against what are agreed to be the interests of the clients. The same would arise on a job carried out under a contract of profit added to ascertained cost. So far as the question is concerned, most of the orders for materials have been placed, and the only increases in price so far are small ones on steel and timber, which have been got over by substituting cheaper materials where possible, with a result that at present *there is no extra cost under the contract*. It is not for one moment suggested that any arrangement that has been made with Messrs. Higgs would be an ideal one in normal times, but they are supporting us loyally and doing their best to show us that Agnew that their confidence has not been misplaced, and there is no reason why other clients and architects should not do the same. This particular contract is being carried out at just about the same time that the clients were advised it would cost some more than before the war.

I am glad to find that Mr. Cresswell supports the suggestion which I originally made to the R.I.B.A. on the 12th, that they should form a Prices Committee, acting in conjunction with the Board of Trade, and be available as a tribunal of appeal. This was further explained by me in your issues of the 26th and September 2, and need not be further repeated now, except to state that there would not be any immediate need for action so far as the clients are concerned, but that it can be safely assumed that the knowledge of the formation of such a committee would check any ring or trust who sought to raise prices artificially.

It is possible inflation of prices by manufacturers—there would appear to have been an attempt to do so in the case of lead—is a far more potent danger than any increase by builders contingent on the added cost to the contract. Mr. Max Clarke, in last week's issue, fears this, but does not say why. Surely the interests of architect and builder are identical at the present; they both want work. It is clearly against the interest of the builder to increase costs, as he knows his will at once restrict the amount of work done.

The builder will agree with the architect that the less outside interference the better, but the knowledge of the Prices Committee in the background would be valuable as a guarantee first to the client that his interests are not being neglected, and again to architect and builder jointly that the supply of materials on which they both depend shall not be priced against them unfairly.

Mr. Clarke's own list of prices of materials confirms our experience at the Albemarle Street jobs—that the rises are inconsiderable, and that there is nothing to prevent people building at the moment, except the dread of some disaster that may go against us. If this is the case, and it must be so or more people would build, is it not wiser to eliminate this apprehension, and say to the builder, "We will not anticipate disaster," and fix up your contract accordingly? It is absolutely certain that unless some such form of contract as we published in your issue of September 16 is adopted the builder must add some margin of insurance against a risk that may not occur at all; it would be a matter of interest to learn what attitude Lloyd's would take up and what rate would be charged—in any case it would tend to increase the cost of building.

Mr. Holloway diagnoses the case with more astuteness when he says that so far as labour and materials are concerned there is not much cause for alarm, but points instead to the financial side as being far more difficult. It is to be hoped that the bankers will take to heart the very pointed remarks addressed to them the other day in the House of Commons. They are called on now to play another part than that of underwriting foreign loans, and unless money can be freely obtained all our plans will fall to the ground.

I am wholly in sympathy with the views expressed in your Editorial that the time is arriving when the War Committee must give proof of its activities, but should have preferred some stronger word than "inept" to describe the letter which the committee has addressed to the Government; it is parallel to the only other evidence the profession have had of the committee's labours when it was announced in your issue of August 26 that they were considering "the desirability of issuing to the profession or to the public an appeal to carry on building to the utmost extent during the progress of the war."

In the first case they offer their services to the Government, and ask them to specify what form of assistance would be of most value; surely a very feeble way to offer to help. They could at least have offered to roll up the red tape the Government has so wisely dispensed with in meeting the crisis. So far as the appeal to the profession is concerned, I do not think it has ever been issued, and it would have been futile without some indications of the lines on which we are to conduct our business. The committee appear to be pursuing a negative line of action.

I hesitate to introduce a small personal experience which, however, it may perhaps be useful to record. I was asked to attend one of the sub-committees to give evidence on the subject of the Albemarle Street contract, and my suggestions of a Prices Committee. The appointment was fixed at 4.30 on September 1. I attended only to find that the members had been put off by telegrams at the last moment, but this did not apply to the witnesses. I attended at some inconvenience, as both my assistants have volunteered, and I was alone in the office. If such methods characterise the proceedings of the War Committee it can only mean that they have too much to do and too much red tape to roll up. I am, of course, sure that they would not have wasted my time intentionally.

C. H. B. QUENNEL.



## REIMS CATHEDRAL: "THE GLORY OF GOTHIC ARCHITECTURE"

[Specially Contributed.]

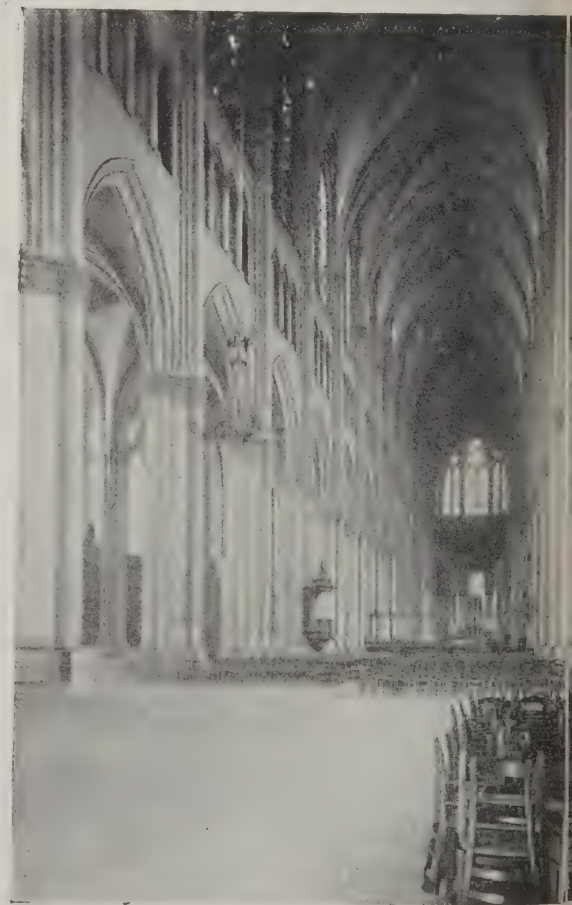
FURTHER invective on the barbarism of the Germans in bombarding Reims Cathedral would be superfluous, the last word having been said by an American writer who surely must be an ex-student of the Ecole des Beaux-Arts. In his opinion the Germans did not reach the lowest depths of depravity by destroying the cathedral: their rebuilding of it would produce an infinitely more tragic result! Any further denunciation of the modern Huns could only come as an anti-climax. They have destroyed, more or less wantonly, but, it is hoped, rather less completely than was at first supposed, what was, on the whole, the noblest Gothic monument in France, and, as an architect has phrased it, "the most treasured mediæval building in the world." Not Amiens nor Chartres, nor Rouen nor Bourges, is more typical of the phase of art for which it stood as a memorial; for the cathedral of Reims was one of those in which the so-called Gothic system of building may be said to have reached its highest pitch of perfection; although some may hold that it is at Amiens that Gothic is as it were most completely summarised, Amiens being by many regarded, indeed, as "the culmination of Gothic art," and there are those who say that it was not quite the equal of Chartres or Bourges in beauty. Reims, however, was the older by some seven or eight years, and the deeply recessed portals, and, indeed, all the details discernible in the perspective view of the west front, are strongly characteristic of its period—say 1212 to 1240. In the former year it was begun by Robert de Coucy, and although the western façade, with its glorious recessed portals and its plethora of statuary, was not completed until the fourteenth century,

the thirteenth-century design was faithfully carried out. Professor Lethaby has said that "the west front is a miracle of imagination and workmanship in the planning and proportions of the interior is the greatest beauty." As to the sculpture it has been objected that "it predominates too much, interfering with the architectural design, and not combining with the exquisite simplicity of the works above." Since the newer statues have been denounced by M. Rostand as being greatly inferior to the old. There are, however, for at the moment the full effects of the German bombardment are not certainly known in London—600 statues in the portal, many of them colossal, and most of them supporting Professor Lethaby's claim that the sculptured fronts that of Reims is the triumph of consummation in scale, perfection of execution, and artistic fascination. The bas-relief of the middle portal represents the Coronation of the Virgin; that on the right the Last Judgment; that on the left the Passion of Christ; the rose window, between the towers, is the baptism of Clovis by St. Remigius.

Of the two rose windows in the west front, the one more than 40 ft. in diameter, and these, as well as the windows in the clerestory, are—or were—filled with brilliant painted glass, richer even than that at Amiens and surpassed only by that at Chartres. Plain white glass was inserted in the aisle in the eighteenth century, hence the damage with cold effect the lighting of the interior. The rose of the north transept was "glorious both in its glass and in its tracery." The length of the building is 466 ft., and it reached a general height of 112 ft. After the destructive fire of 1487, the four towers of its transepts were lowered to the level of the roof.



The West Front.



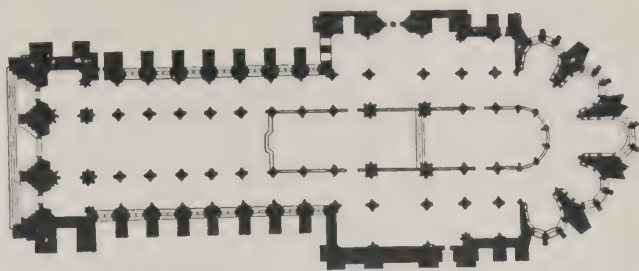
Nave, looking East.

REIMS CATHEDRAL.



thus losing much of its original grandeur. The east end is of the fifteenth century. The architect thought the plan and proportions of the choir perfect, the expansion towards the choir (here reproduced) specially commending itself. The plan of radiating chapels became the type for all cathedrals. Very similar is the plan of Amiens, however, is less simple and of less admirable proportions. Reims has been frequently called "the mother Abbey of France," but the comparison does justice to the French fane, which was completed when the French builders were at the height of their creative exuberance; although, as we have seen, it was actually executed a century later, and therefore inevitably somewhat lacking in the spirit of the period of its inception. Westminster Abbey's indebtedness to it has been pointed out by Professor Lethaby; France having been then the source whence all architectural inspiration flowed. "Reims," he says ("Mediæval Art"), "is the prototype of Westminster Abbey, which shows evidence of close study of the French cathedral church." It is at Reims that the perfected plan first appears.

On the other hand, there are those who are disposed to compare it with another architect who, knowing and studying Reims, thinks that its only outstanding point of difference with the Abbey lay in the fact that for centuries—nay, for centuries—the Kings of France were crowned within its walls. Its mere size was awe-inspiring, more impressive, both externally and within,



Ground Plan.

than even the great cathedral at Amiens, though the actual dimensions were not greatly different. But beside either, Westminster is a mere pigmy in comparison. The same architect writes with special enthusiasm of the interior of Reims. "Whether seen in the early morning, with the wonderful stained glass in the clerestory windows of the apse aglow with light and colour, or in the evening with the great west door open and the sunlight streaming in upon the empty nave, or at midday on the occasion of some great festival, when the same nave would be packed with a dense throng of worshippers, it was equally impressive. And its blackened ruins now proclaim to heaven the true character and significance of German 'culture.'"

## THE PLATES.

### *Lodge, Elmstead Glade, Chislehurst.*

THIS lodge, erected from the designs of Mr. R. Frank Atkinson, F.R.I.B.A., forms the principal entrance to the house indicated. The bricks are of specially selected shades—dark red, blue-black, and even sulphurous green—judiciously mixed and pointed with  $\frac{3}{8}$ -in. white mortar joints. The cornice, columns, windows, sashes, door-frames, etc., are of red deal painted white, the doors and gates being peacock green in colour. The roof is covered with dark red tiles.

### *Vase in the Grand Trianon, Versailles.*

This splendid vase, executed in Sèvres porcelain, is now in the circular hall of the Grand Trianon at Versailles. The principal motif represents France giving into the hands of Ferdinand VII. the reins of government of Spain. The vase, both in design and execution, is a particularly fine example of Sèvres workmanship.

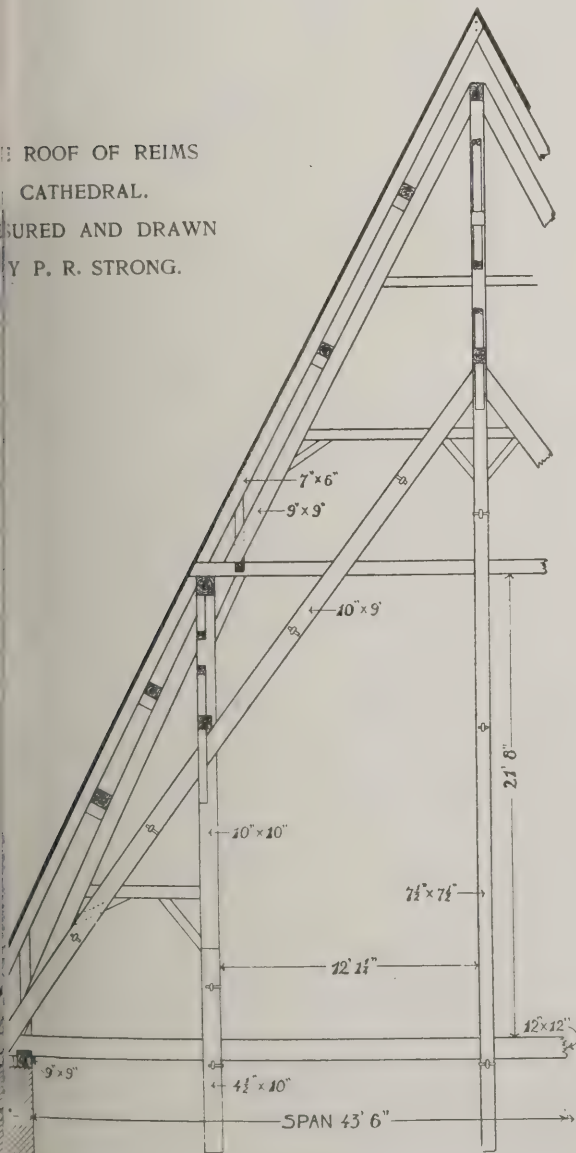
### *Working Drawing of Liverpool Cathedral.*

Considerable progress is being made in the erection of the great Cathedral at Liverpool, some illustrations of the present condition of the work being given elsewhere in this issue. The working drawing reproduced represents a part of the building which has not yet been started, but as an example of modern vault construction the drawing possesses more than passing interest.

### *The Louvre, Paris: Detail of Façade.*

The detail shown comprises two sections of the ground-storey arcade to the façade of the Louvre, which fronts on to the Place du Carrousel. This portion of the Louvre was superintended by Lefuel after the death of Visconti, who had previously prepared plans for the completion of the whole scheme of buildings. Lefuel, who succeeded Visconti in 1854, made various alterations and additions in decoration, but he adhered very faithfully to the general plan of his predecessor. He arranged the interiors, designed the rich ornamentation on the front to the Rue de Rivoli, and generally directed the work of the 154 sculptors and the army of decorators who were engaged on the buildings. On August 14, 1857, the "New Louvre," as it was called, was solemnly inaugurated by the Emperor Napoleon III. Lefuel, it may be

ROOF OF REIMS  
CATHEDRAL.  
DESIGNED AND DRAWN  
BY P. R. STRONG.







*Terrace of Houses at Kennington Green, S.E.*

*New Offices for Christ's Hospital, London, E.C.*

## SUBSCRIBERS ABROAD.

## CORRESPONDENCE.

*The Editors disclaim all responsibility for the statements made expressed by correspondents, who are asked to be brief, and to write only of the paper. Every communication must bear the name and the sender.*

*To the Editors of THE ARCHITECTS' AND BUILDERS' JOURNAL.*

- (a) Undertaking complete charge of an office
- (b) Carrying on in all its phases a specific piece of work.
- (c) Visiting a specific piece of work and reporting to office only.
- (d) Dealing with clients, builders, and other matters.
- (e) Providing draughtsmanship directly or indirectly.
- (f) Giving only general advice as and when required.

1. By writing to the Hon. Secretary, Architects Committee, 9, Conduit Street, Hanover Square, London, offering their services, when a formal request be sent to them inviting specific information as to the extent and nature of their generosity in this be called upon.

2. By sending this announcement to colleagues who have already joined the Forces, and who are known or supposed to require assistance.
3. By intimating their own intention of joining the Forces, and the general nature of the professional circumstances which will result, when a formal form will be sent with full details.
4. By drawing the attention of others likely to be interested in this movement, whether prospective donors of services or military patriots.

The Committee also wish to call the attention of those desirous of joining the Army to the fact that certain advantages may be obtained by recruiting through the Architectural Association rather than through other channels.

C. STANLEY PEACH,  
Hon. Secretary, Architects' War Committee  
9, Conduit Street, Hanover Square, W.

*Architectural Association War Service Bureau*  
*To the Editors of THE ARCHITECTS' AND BUILDERS'*  
*JOURNAL.*

It is proposed to make it a training centre from which men will join the regular forces, as they are able, meantime becoming proficient in drill and music. While in the first place the corps is intended for



not at present join the army, all who have for commissions or are waiting to enlist in corps not recruiting will be most welcome. R.E. are still not enlisting, but men are now drafted from Chatham to various training camps, we may hear any day that they have reopened. Its are now wanted for the R.E. units of the Naval Division. They should be well up in technical work. Application should be made only at No. 2, Savoy Hill, W.C. All men who are accepted should inform me at once, so that I may have a list of men who are to be kept together. School Battalion—Middlesex Regiment.—There are still vacancies in this corps. Men should apply personally at 24, St. James Street, S.W. All who are accepted will be kept together provided they send their names at once.

ALAN POTTER,

Hon. Sec. A.A. War Service Bureau.  
10, Bedford Street, Westminster.

"Brightening" Sessional Meetings.

Editors of THE ARCHITECTS' AND BUILDERS' JOURNAL.

—I have read with interest the notes in your columns of September 9 with regard to sessional meetings more attractive. May I suggest that if a subject or science (not only embraced in the profession, but at the same time rapidly becoming part of better-class architecture, more especially in country mansions, etc.) taken occasionally, it should prove a great inducement to members to attend these sessional meetings. What I have in mind is scientific and practical horticulture and general garden formation, with relation to the subject.

To make a garden an absolute success in every respect requires a clever architect, and a competent horticultural expert, who will work under the architect, and simply advise on the practical and scientific horticultural points, as it is not possible for an architect to have full knowledge of the thousand and one intricacies which govern modern horticulture.

Not dealing with growing tomatoes or potatoes; what I mean is the scientific arrangement of plants in the garden, which needs the master mind of one who has made a careful study of the art, and has put that into practice, not as a landscape gardener (who works at variance with the architect), but as an architect and lover of all that is beautiful in "the garden should be."

In my humble opinion the garden and surrounding grounds of a mansion or large house should be planned by the architect, so that the whole scheme may be in harmony. A garden should have its own character, and one sometimes shudders to see a fine Elizabethan or Elizabethan mansion with a garden utterly void of character, period, or sentiment; and simply because no architect had been called in to decide the form of the garden.

Returning to the point, I feel that many interesting and useful papers could be given on scientific and practical horticulture, etc., which would undoubtedly increase the attendance of members at sessional meetings.

A. D. THOMPSON, F.R.H.S.

London, W.C.

I do not think that sessional meeting attendances could be much improved by the introduction of papers on horticulture. Architects, after all, are mainly concerned with architecture; and though they must of necessity be conversant with garden design, it is not necessary that they should possess an exhaustive knowledge of horticulture. This is the business of the nurseryman, upon whom the architect is well entitled to rely. An occasional paper on the subject, however, would do no harm.—EDS. A. AND B.J.]

## BUILDING MATERIALS AND THE WAR.

MESSRS. J. B. JOHNSON AND CO., slaters, plasterers, and modellers, 108, Crown Street, Liverpool, and elsewhere, have favoured us with the following communication giving their experience and opinions as to the effects of the war on the building trade:

Our personal experience of the effect of the war upon the building trade in Liverpool has been that at the outset a disposition was manifested to stop new buildings required for industrial extensions. This feeling has given way to a more settled condition of things, and orders are being given generally to proceed at a normal rate, instead of proceeding at high pressure to complete contracts within the shortest possible time.

Personally, we find that mineral rock asphalt, largely used for flat roofs and imported from Germany, is about the only material which we cannot obtain, and of which no large stocks seem to be held in this country.

Prices have been advanced for mastic asphalt, and some who hold a supply in this country are demanding cash before delivery, and an advance of 25 per cent. in price.

Relief of the situation is expected in two directions: 1. We are hoping that the Government (to whom this shortage of material has been reported) may be able, through our Consuls in France and Italy, to direct and organise a new supply to this country and thus free us from the uneasy feeling which we have always felt, in buying from German manufacturers, that this material was not so reliable as goods manufactured in England. 2. Experiments are being made in manufacturing asphalt mastic artificially from Trinidad bitumen and English limestone dust.

As to Riga lathwood, this timber has been so exceedingly scarce both this season and last season that prices have advanced quite 50 per cent., and even at the enhanced price wood has been practically unobtainable.

It would appear, therefore, as if, now that the importation of Riga lathwood is entirely stopped, it would be advisable for architects to consider whether the time has not arrived when they might usefully consider whether or no they can revise their specifications for lath and plaster, and in place of Riga lathwood consider whether Swedish sawn laths—say 1 in. by  $\frac{1}{4}$  in. or  $1\frac{1}{8}$  in. by 3-16ths, be substituted, or Swedish cleft laths of similar section. This would certainly have the effect of cheapening the cost of lath-and-plaster ceilings, and we think, so far as practical experience goes, extending to upwards of forty years, that architects would get as good a job with these sawn laths as with the cleft.

We are very loth ourselves to make this change on account of the effect upon the labour market, as it is evident that it would entirely extinguish the English lath cleaver as a trade.

The fact is, however, that the speculative builder has many years ago substituted Swedish-made laths for English riven laths, and that for one lath cleaver working in Liverpool now there used to be twenty a quarter of a century ago, and those who remain are all old men.

This is one of those instances where an extremely useful trade, employing large numbers of men all over the country, has been entirely wiped out of existence by the free entry into this country of manufactured articles from countries where labour is cheap.

We have been told—we don't know how true it is, but we have no reason for disbelieving it—that in Sweden the farmers lay in a supply of lathwood which is cleft and bundled by female labour during the winter, and in the spring the laths come over along with matches and many other Swedish productions and have found a ready sale in our market.



## ENQUIRIES ANSWERED.

### *Planning Elementary Schools.*

L. H. S. (Wimbledon) writes: "In an elementary mixed school for 200 children, for a rural district, what floor area per head is it usual to allow for in (a) the assembly hall, (b) in the class rooms? Also, is it advisable to have a playground for each sex, or will a general playground be sufficient?"

—The arrangement of elementary schools is governed by the regulations of the Board of Education, and although these are merely suggestive and some latitude is allowed, very good reasons must be shown for any material departure from the lines laid down therein. The latest rules particularly specify that except in the smallest schools, designed to accommodate less than sixty children, separate playgrounds for boys and girls must be provided, though a common playground for girls and younger children of both sexes is allowed. In answer to (a)  $3\frac{1}{2}$  ft. sup. per head should be allowed in assembly halls, (b) 10 ft. sup. per head in class rooms. The new "Building Regulations for Public Elementary Schools" (in force from September 1, 1914) should be obtained from Wyman and Sons, Brems Buildings, Fetter Lane, E.C., price 2½d.

G.

### *Laying Composition Floors.*

BACK OF BEYOND (Muswell Hill, N.) writes: "As an architect practising beyond the outskirts of civilisation, who is called upon to do all sorts of jobs which at home would be put into the hands of specialists or done by the firms whose proprietary goods were specified, may I crave the assistance of your enquiry column for the following: I am anxious to put in a jointless composition floor (containing sawdust) to a small plague hospital. Six inches of concrete would over-lie a damp-proof course of 3 in. cinders, pitch, tar, and creosote oil. Kindly give in detail as fully as possible the materials, proportions, and method of laying. A reference to any article or publication would be much appreciated."

—I am sorry that I cannot answer the question by "Back of Beyond." I have often tried myself to find how the numerous plastic composition floors are composed and laid, but firms doing the work appear to guard their secrets closely. I believe the original process was a German patent. If the law now allows, reference to the Patent Office library might give the information desired. Books of recipes which are of free access in the library should also be consulted.

G.

### *Correct Way of Fixing Party Fencing.*

L. and H. (Northants) write: "A plot of ground is to be enclosed by a close-boarded fence having 1-in. boards and 5-in. by 3-in. post, as sketch (not reproduced). Assuming that the fence belongs to the owner of the land enclosed, which is the correct way to fix it, with the posts facing outside or inside? What constitutes the 'centre' of such party fence, and how is it placed in respect to the dividing line of the properties? Should the centre be taken from the outside face of post to outside face of boarding?"

—The owner should put up his fence with the posts inside. The theory is that one must erect one's fence entirely on one's own land and with its face exposed to outside view—driving the nails in a home-wards direction. The legal "presumption

of ownership" in respect of a post and rail fence which carries boarding upon one side is always that the face of the boarding is the boundary of the property. In reply to the second part of the query, I do not consider a fence of this character to be suitable for employment as a party fence. A quick hedge or a plain set of posts and rails may be so employed, but the addition of boarding will necessitate some documentary evidence that the fence is of a party character.

F. S. I.

### *Uses for Waste Wood.*

E. W. AND SONS (Newport, Salop) write: "Do you know of any reliable system whereby the waste shavings and timber ends can be utilised to form a heating apparatus for a drying shed? We have a large quantity of waste which we have to burn to get rid of."

—Waste shavings and timber ends can be burnt under a Babcock and Wilcox boiler for raising steam, or in a Grundy's heating furnace for warming air for a drying shed. The addresses are Babcock and Wilcox, Ltd., Oriol House, Farringdon Street, London, E.C., and John Grundy, 393a, City Road, London, E.C. In each case full particulars must be given to enable proper designs to be made.

H. A.

### *A Question of Ownership.*

C. A. W. (Batley) asks a question with respect to the ownership of a bedroom which is situated over house A, but is used by the occupants of house B, access to it being

obtained through a doorway in the wall, the original access from house A having been walled up. The question, whether, in the absence of documentary evidence, owner of house A can reclaim the bedroom.

—In the absence of documentary evidence of a doorway through the wall would afford strong presumptive evidence that the bedroom pertained to house B, although it is built over house A and the occupants could not be evicted without compensation, if at all.

### *Non-magnetic Stone.*

C. J. (Sheffield) writes: "Please advise which of the sandstones is non-magnetic, also which kinds of wood (if any) are not affected by magnetism."

—Expert opinion, based upon spectroscopic analysis of various specimens of stone, should be obtained from testing agencies. It is not stated for what purpose this analysis is required. Probably a stone which is free from iron constituents, such as ferric oxide or pyrites, would be the one to select. Craigleith, which is entirely siliceous, is doubtful whether any seasonings would be magnetic.

### *Ownership of Unfinished Building.*

H. B. (Yorks) writes: "A building owner refuses payment on architect's certificates, and orders works to be suspended indefinitely. In the event of the building



LIVERPOOL CATHEDRAL: CENTERING OF CHOIR VAULTING.



being unable to pay, and of the building being left half-unfinished, who would be responsible?"

Though he cannot or will not pay for the building, an owner cannot be ousted from his property except as a result of proceedings in bankruptcy, when the unfinished building would be included among the assets, in which case the builder would have preference over other creditors if his claim was forthcoming.

#### Orders for Shop Front.

(Portsmouth) writes: "Please state whether the construction shown on the proposed tracing [not reproduced, the interest of the problem being considered the answer] is safe. The two girders above the shop would not be very heavily loaded, but the road in front is used by heavy motor-buses pass fairly close."

As far as can be judged from the tracing, the construction will be sound, if the girders over shop at front are 10 in. by 6 in. by 42 lb., with bolts and separators, and at side 2 ft. 10 in. by 30 lb., with bolts and separators. There should be a bearing plate under the girders and riveted or bolted to them over the stanchions. H. A.

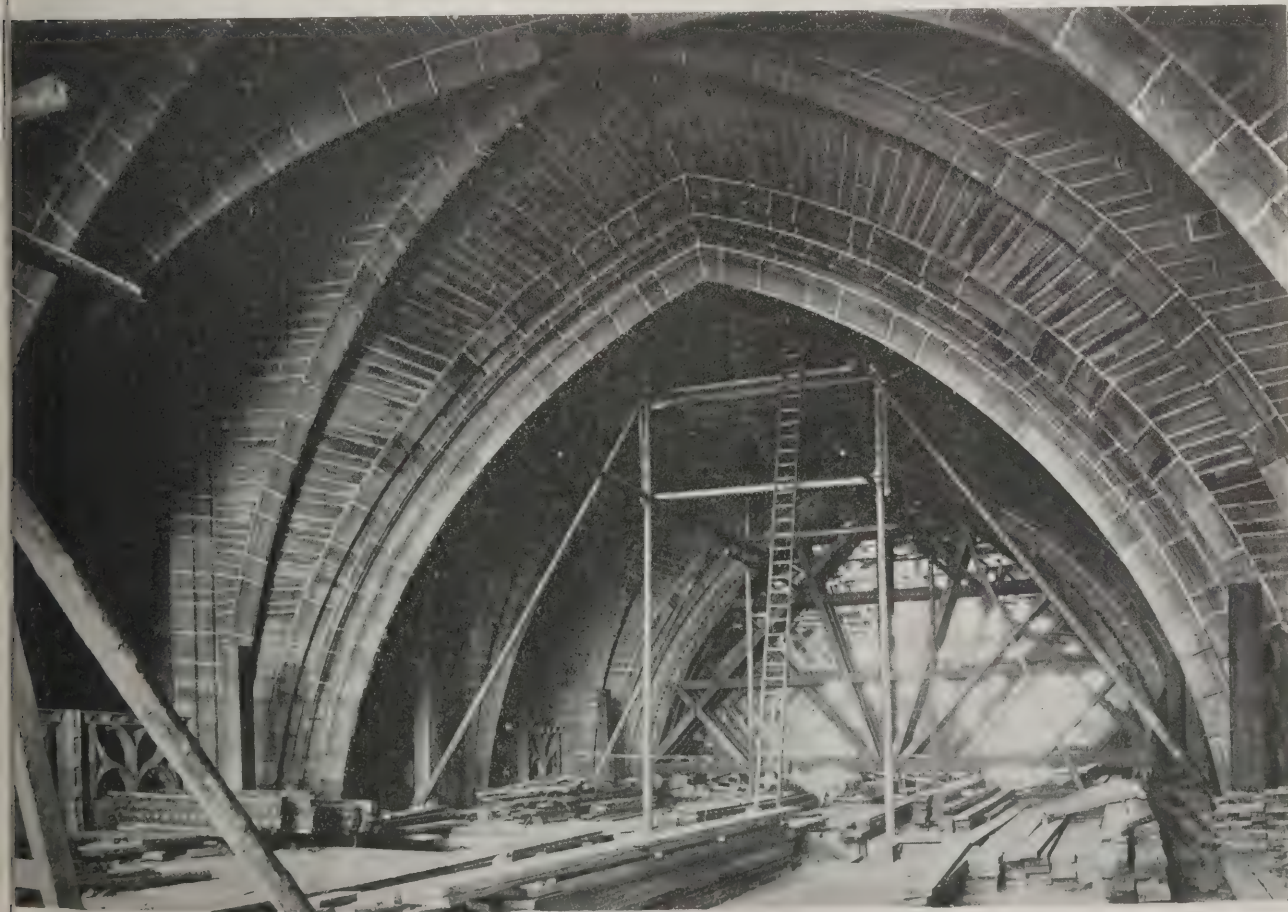
#### PROGRESS OF LIVERPOOL CATHEDRAL.

Progress is being made with the construction of Liverpool Cathedral. Lady Chapel was finished some considerable time ago, and the choir is well on towards completion. The accompanying illustrations

show the approximate condition of the work at the present time. The smaller view gives a good idea of the complicated type of centering which is required to support the arches during construction; while the larger view, taken from a height of 85 ft. above floor level, shows the finished character of the choir vaulting. The choir is composed of three bays, each 41 ft. centre to centre of the arcade piers, the width between the arcade walls being 47 ft. The piers of the choir are continued solid across the aisles (which are 13 ft. 6 in. wide), forming a continuation of the outer buttresses. The wall, 5 ft. wide, is pierced by low arches to form a passage along the aisles. Each bay in the aisle is in consequence shut off from the other. The barrel vault is divided into panels by ribs springing at a height of 55 ft. from the floor, the apex of the barrel just clearing the choir aisle windows, and the vault carrying the triforium gallery. There are three windows in each aisle of the choir, the sill being 41 ft. from the floor. Each window comprises two 6 ft. 10 $\frac{1}{2}$ -in. lights, with a simple form of tracery. On the jambs, inside and out, are carved figures with canopies and crocketed pinnacles over. A narrow walking-way is tunnelled in the thickness of the aisle wall, which is 6 ft. 3 in. wide. At the east end the choir aisles have a low barrel vault, carrying a floor above. The vault is carried on a carved cornice, and has a carving course each side of the ridge rib. At the west end of the aisles there is a similar vault, the floor above being the organ floor. An ambulatory outside the main east wall connects the two choir aisles, and is lighted by four two-light windows.

The ceiling is a barrel vault, the ribs being transverse and diagonal, with carved bosses at each intersection of the

ribs. The arcade piers in the choir are 55 ft. 7 $\frac{1}{2}$  in. from the floor to the cap, from which spring the arcade arches. The rise of the arch is 20 ft. and the width of the arcade wall 6 ft. 4 $\frac{1}{2}$  in. The front part of the arcade pier continues past the springing of the arcade arches, forming a vaulting shaft to the cap, which is 84 ft. 6 in. from the floor level. The vault is quadripartite, and there are four main transverse arches across the choir, 5 ft. wide. The bays of the choir are divided for vaulting, a wall being built across the triforium to form abutment to a minor transverse rib crossing the choir. The smaller bay is then formed by diagonal ribs. The height to the apex of the vault is 116 ft. from the floor level. The roof of the choir is carried on walls built on the back of the four large transverse arches, and is of reinforced concrete covered with copper. The triforium is 82 ft. 6 in. from the floor, the width being the same as the aisle below—13 ft. 6 in. The stones used in the building of the cathedral are local red sandstones, from the quarries at Woolton, Runcorn, and Rainhill. The Woolton stone is used for all work exposed to the weather. The three stones are used mixed together inside the building, Woolton or Runcorn being used where heavy weights occur. Throughout the building the thickness of the mortar between the beds and joints of the stones is  $\frac{1}{2}$  in. The stone is put on to an inch of mortar and driven down until the bed is half-inch thick, thus ensuring that the stone shall be solidly bedded. The whole of the joints throughout are arris-joggled, the mortar being composed of Clitheroe lime and ashes, ground in a mill. The walls are filled in between the stones with Ravenhead bricks, from St. Helens. The average number of workmen employed on the building is 220.



LIVERPOOL CATHEDRAL: VIEW OF CHOIR VAULTING, SHOWING TRIFORIUM GALLERY (85 FT. ABOVE FLOOR LEVEL).



## FOR KING AND COUNTRY.

Additions to the lists of those members of the architectural profession and others following related occupations who are rallying to the Colours are still arriving in considerable numbers, and we have much pleasure in publishing the following further names:

## LIST OF MEMBERS OF THE A.A. SERVING IN LORD KITCHENER'S ARMY AND THE TERRITORIAL FORCES.

*Commissions in the New Army or Territorials*  
 Brittain, H. W. Methuen, Hon. A.  
 Brookes, C. S. Purvis, A. F.  
 Cart de la Fontaine, P. Sowerby, F. D.  
 Corlette, H. C. Squire, J. H.  
 Hopewell, J. H. Whitehead, H. M.  
 Jones, L. F. Yetts, L. M.

*Royal Engineers.*

Addey, F. A. Hosking, T. S.  
 Benslyn, L. M. Jay, H.  
 Bolting, M. Jeffrey, H. M.  
 Brace, A. Keesey, W. M.  
 Butt, P. Lamb, H. I. T.  
 Bunce, E. Mathews, J. B.  
 Castleman, P. O. Maxwell, K. J.  
 Cooper, A. Parsons, E. C.  
 Cox, N. W. T. Piggot, R. M.  
 Davidge, H. E. J. Pite, R. W.  
 Davis, H. S. Pool, S.  
 Faulkner, H. Scott-Moncrieff, W. W.  
 Frank, F. D. Sergeant, R. N.  
 Gotch, L. M. Seward, H. J.  
 Grant, T. F. W. Smith, A. S. D.  
 Hampton, W. O. Stoddart, E. W.  
 Harris, A. L. Swindells, F. H.  
 Hart, G. W. Tanner, N. B.  
 Hett, A. J. Tanner, S.  
 Hett, L. K. Webb, M. E.  
 Higgs, H. J. Williams, W. J. V.

Note.—This list includes a few men who are friends of members and have joined the Engineers through the A.A.

*"The Artists."*

Battiscomb, H. Newton, F. G.  
 Blackford, A. G. Newton, W. G.  
 Cheriton, —. Nightingale, F. B.  
 Day, N. Robinson, N. F.  
 Felkin, S. D. Sharpe, E.  
 Ford, P. Shuffrey, G.  
 Francis, F. C. Tapper, Mike  
 Gossling, H. F. Topham, G. R.  
 Grice, W. S. Walsh, J. B. M.  
 Hatchard-Smith, W. Watson, Bryan  
 Kennedy-Smith, E. K. Wilson, J.  
 Murrel, H. F.

*The H.A.C.*

Archer, H. D. Jacob, J. H.  
 Aldous, —. Maule, H. P. G. (Co-  
 Burton, L. Sgt.-Maj., F.S. Bat-  
 Butler, A. S. talion).  
 Campbell Jones, O. O'Donoghue, R. J. G.  
 Dowsett, T. W. Pechell, M. G.  
 Hill, J.

*The London Scottish.*

Binning, Alan McKenzie, A.  
 Braine, R. Graeme, A. V. S.  
 Glover, A.

*King Edward's Horse.*

Ching, W. T.

*R.A.M.C.*

St. Leger, C.

*Inns of Court.*

Baynes, E. S. A. Lodge, A. L.

*Australian Medical Service.*

Unwin, E.

*Civil Service Rifles.*

Bright, T. L.

*"The Queen's" 24th Batt. County of London.*

Bonser, K. J.

*Public Schools Corps.*

Battle, A. N. Davson, A. E. W.

*Royal Naval Volunteer Reserve.*

Curd, P. J. Odell, J. F.

The following are on service, but in what corps is not certain:

Adams, —. Manlove, G. E. D.  
 Burford, J. McKenzie, G.  
 Dawson, A. Sedding, G. E.  
 Dicksee, H. J. H. Silcock, A.  
 Harris, A. Steer, —.

Note.—This list has been very hurriedly compiled, and is incomplete. Corrections and additions are invited.

The Architectural Association having no funds available to carry out the work of recruiting and training, it will be necessary to depend on voluntary contributions. It is felt by the Council that members who are debarred from taking an active part in the movement will welcome this opportunity of supporting it by financial assistance, either directly, or by an appeal to their friends. Any donations, however

small, will be gladly received by Mr. Alan Potter, the Hon. Secretary of the Bureau, and names of all subscribers will be published from month to month in the "A.A. Journal."

H. AUSTEN HALL,  
 Acting President.  
 H. M. FLETCHER,  
 Hon. Secretary.  
 STANLEY HAMP,  
 Hon. Treasurer.

The following names have been communicated to this office:

G. J. Howling (of the editorial staff of the "Architects' and Builders' Journal"), 2nd Batt. City of London Fusiliers.

B. W. Bailey, assistant to Mr. George E. Clare, M.S.A., Harrow, D Company, 5th Wilts.

L. A. Phillips, A.R.I.B.A. (with the Public Schools and Universities Corps), J. M. Probert, W. J. Rogers (both with 1st Mon. Batt.), all from the office of Messrs. Phillips and Vaughan, architects, Newport, Mon.

Wilfrid H. Robinson (Kent County Education Architect), captain in the Kent Cyclist Batt.

Allen W. Wilson, A.R.I.B.A., of Peterborough, 6th Batt. Northamptonshire Regt.

L. Willoughby Thomas, architect, Cardiff, Welsh Divisional Signal Company, R.E.

P. D. Harris (Harris and Harris, quantity surveyors, Birmingham), lieutenant, North Staffordshire Regiment, now at the front.

Major E. H. Fawckner, F.R.I.B.A. (Habershon, Fawckner and Co., architects, Newport, Mon.), is serving with the 3rd Batt. Monmouthshire Regiment (Territorials).

## TRADE AND CRAFT.

*The Associated Portland Cement Manufacturers (1900), Ltd.*

The fourteenth annual report of the Associated Portland Cement Manufacturers (1900), Ltd., to be submitted to the fifteenth ordinary general meeting of the company, to be held at Winchester House, Old Broad Street, E.C., on September 30, states that during the past financial year trade has been active in some departments, but the company's operations were adversely affected by the long dispute in the London building trade, now at an end, and by a substantial diminution in the export demand for cement. The works in British Columbia were completed in the early part of the financial year, but here again lessened demand, due chiefly to the financial stress prevailing in the Dominion of Canada, has caused manufacturing operations to be intermittent. The decrease in the revenue from interest and dividends is due largely to the fact that no return was received during the period from the company's investment in Mexico, owing to the disturbed state of that country. Substantial profits were, however, earned there, but unfavourable exchange rendered the declaration and remittance of a dividend inadvisable.

In view of these conditions the directors consider the results shown by the accounts to be satisfactory. Provision has been made in the profit and loss account for the annual instalments required for the redemption of the debenture stocks, also for sundry other charges for depreciation and sinking funds. These items amount in all to £51,518, and the directors recommend that, in addition, £50,000 shall be carried to the general reserve and depreciation account, bringing it to £385,000.

The total charge for the year for depreciation and sinking funds will then amount to £101,518. The profits, after deduction, amount to £563,750.

The directors regret that, having to the financial conditions brought about by the war, and to the company's commitments, they are unable to recommend the payment of a dividend on ordinary shares, in spite of the fact that the earnings would have allowed of doing so had the circumstances of the year not been quite abnormal. In consequence of this decision the amount carried forward, after making the above-mentioned reserves, is over £100,000 in excess of the sum brought forward at the beginning of the year. They recommend the payment of the preference dividend at its due date, September 30. Of first and second mortgage debenture stock, the amount deemed and cancelled during the year respectively £20,475 and £23,241.

The works in South Africa in which the company is largely interested are practically completed, and the manufacture of cement there is on the point of beginning.

*Osram Lamps.*

In order to afford convincing proof of the fact that Osram lamps are made in this country and are not a product, as has been maliciously claimed, the General Electric Company invited the Press last week to inspect in detail the Osram Lamp Works at Brooklands, Hammersmith. These works, which have grown out of the Robertson Works, are excellently equipped in particular, nothing being more satisfactory than the admirable arrangements for the comfort and convenience of employees—about 1,200 girls; they indeed, afford a striking object-lesson of what can be done under consideration. It may be frankly stated that the original patent for the Osram lamp is a German patent, but its manufacture in this country is directed entirely by British hands. The Osram Works were established at Hammersmith about six years ago, at the time when Lloyd George's Patents Act came into operation, an Act requiring that German patents obtaining British protection be worked in this country. The General Electric Company made arrangements for acquiring the British rights in the Osram lamp, and a small proportion of shares—six per cent.—was allotted abroad in consideration of the same, and as the only possible means at the time of stopping importation of Osram lamps.

The manufacture of the lamps is an interesting watch. The work is quite self-contained, every part of the lamp being made at Hammersmith with the exception of the bulb, which is blown at the old English glass works at Lemington-Tyne, and the metal cap, which has hitherto been made in Holland, but is now to be made in some new works at Hammersmith which will be ready shortly. The essential feature of the Osram lamp is, of course, the tungsten filament. Tungsten is a rare mineral which is obtained from ore. It is crushed into powder, which is compressed into the form of small square sticks about the size of a pencil. These sticks or bars are drawn out into wire, smaller and smaller until in its finest form the filaments are thin as a spider's thread; actually one thousandth of an inch in diameter, which exceedingly small size is obtained in the last stage by drawing the wire through a hole in a diamond. The filament



hand on to the supports attached prepared glass stem, and the thus formed is subsequently the bulb, which is then passed the other departments for completion does not allow of any detailed of the many processes through the lamp goes before it is finished; say that at every stage the lamp is examined, and that when complete is perfect. The Osram lamp is four times more efficient than any carbon filament lamp, and in its form, the half-watt lamp, in the filament is kept at an exceedingly high temperature, it is stated to be eight times as efficient as the ordinary filament lamp.

Company with other members of the made a thorough inspection of at Hammersmith, and not only clearly evident to us that the Osram is entirely a British manufacture, but it is an exceedingly efficient lamp, which will stand a surprising of rough handling.

#### LONDON BUILDING TRADE SETTLEMENT.

September issue of the Board of Labour Gazette," a summarised of the London building trade dis- given. Our readers having been of every step in the progress of the dispute, there is no necessity to go ground again, but the following of the terms of settlement may be of use for reference.

It will be remembered that on June 8 representatives of the national executives of the trade unions involved in the dispute conferred separately with the Conciliation Board and the Council of the National Federation of Building Trade Employers, and the agreement was reached:

Disputes between employers and men, by cause whatever, to be referred to the Conciliation Board.

Employers to be at liberty to employ any and the unions to have the right of reinstatement against any operative who has made himself specially objectionable to his fellows.

Employers to accept plasterers' working rules as a condition of agreement with all sections, rules relating to wages, overtime and money.

Decisions on these points to be carried on between each section and the employers.

Inspection granted, but not during working hours.

Employers agree to reinstate all workmen at the earliest practicable moment, and to the ordinary number of men.

Elimination of men concerned in the dispute.

Abolition of overtime rules for all trades.

Employers' notice for termination or alteration of rules.

Employers to guarantee the observance of the rules.

A large number of the men showed a large opposition against accepting these proposals, and all the unions together, but the Council of the Stonemasons' Association, in which there had been a large majority for acceptance, passed a resolution endorsing the action of their London Association who had approached the Master Builders' Association with a view to settling the dispute.

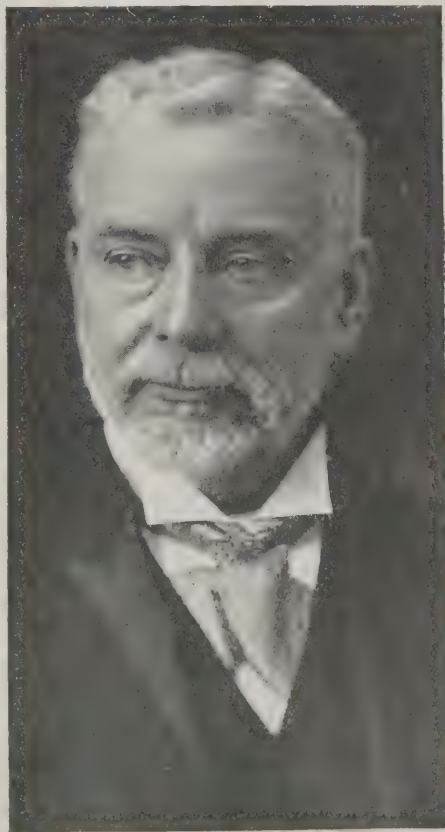
After this several efforts were made to bring about sectional settlements, each making its own terms; but, with the exception of the stonemasons, engine drivers, and wood-cutting trades, these efforts proved useless, and a ballot was taken among the members of the National Federation of Building Trade Employers on the question of a general lock-out, which resulted in a majority in favour of the proposal to go on a general lock-out unless the dispute was settled by August 15.

In the meantime, however, the European war had begun, and every endeavour was made to bring about a settlement. A conference was held on August 6 between the various executives of the unions, the National Federation of Building Trades Employers, and the London Master Builders' Association, and an agreement was arrived at accepting the terms last offered by the master builders and previously rejected by the men, on the understanding that the clauses relating to disability and to foremen, as well as the rates of wages to timbermen, and alteration in overtime rates for labourers, were submitted to the Augmented Conciliation Board for final decision. Separate agreements between the London Master Builders' Association and various unions embodying the terms of settlement were then signed, and a final settlement of the dispute was arrived at on August 14, when the National Association of Operative Plasterers and the Amalgamated Society of Carpenters and Joiners, who had stood out after other unions had signed, also came to terms.

#### OBITUARY.

*Mr. Robert Adams.*

It is with great regret that we have to announce the death of Mr. Robert Adams, of 3 and 5, Emerald Street, London, W.C. Mr. Adams, who died on September 11, at his Brixton residence, had reached his seventy-fifth year, he having been born at Fareham in 1840. Coming to London as a young man, he founded in 1870 the business which bears his name. In this business, as very many architects have good reason to know, Robert Adams showed both enthusiasm and genius, and the Patent Office records bear witness to his extraordinary fertility in the invention of building fittings and accessories, for which, moreover, his firm has been awarded no fewer than fifteen gold medals



THE LATE MR. ROBERT ADAMS.

and more than sixty highest awards for excellence in design and workmanship. He was the first to apply the hydraulic or oil-checking principle to floor door-springs, and his invention of the screwed rod and regulator system of gearing has provided a method of operating sashes for ventilation which has become indispensable. But his contributions to the comfort and convenience which depend upon ingeniously devised details are almost innumerable, and there can be but few public buildings which, in their equipment, are not in some way indebted to the ingenious and versatile mind which was for forty-four years rendering enthusiastic service to the architectural profession; and a very distinguished barrister has said he had never met a man more perfectly informed than Robert Adams on all points relating to his particular sphere of work. He did everything in a spirit of thoroughness, with unsparing labour, and with intense concentration of his talents.

Those who knew him most intimately have the best reason to speak of his unswerving integrity, and the strength and gentleness of an exceptionally fine character.

In the large business at Emerald Street his sons—Mr. Sidney J. Adams, Mr. Harvey R. Adams, and Mr. Henry E. Adams—have been for many years associated, and they will continue to direct it.

*Mr. John Hutchison.*

Mr. John Hutchison, one of the oldest representatives of the building trade in Dunfermline, died last week at his residence in Cemetery Road. He was in his seventy-ninth year. In partnership with an elder brother, he erected the Corporation Buildings of the city fully thirty years ago, besides some of the most important factory warehouses and private residences in the city. For many years he was entrusted by the Government to execute repairs and alterations on Crown property in the city, and in that capacity he executed some great improvements on the nave of the Abbey Church, as well as on the ruins of Dunfermline Palace.

#### COMPETITION.

*Housing at Chapel-en-le-Frith.*

The award in this competition is as follows: 1st, Charles Flint, Buxton; 2nd, George E. Garlick, Buxton; 3rd, Sidney Walton, Manchester.

#### PROJECTED NEW WORKS.

*Infirmary, Morpeth.*

The Morpeth Guardians are to obtain plans and estimates for a new infirmary to cost about £7,500.

*Schools, Glamorgan.*

The Glamorganshire County Council Education Committee have decided to erect new schools at Taingwaith, Clydach, Glyncoed, and Bryncethin. They are applying to the Local Government Board for permission to borrow £20,587 for this purpose.

*Houses, Brigg.*

At the last meeting of the Brigg Rural Council it was reported that land had been acquired for building artisan dwellings, and further lots were ordered to be advertised for. It was decided to approach the Local Government Board with a view to taking up a loan of £5,000 or so for this purpose.



*School, Brighton.*

The Brighton Education Committee are applying for a loan of £15,000 for the purpose of building a one-storey open-air school in Loder Road, Brighton.

*Artisans Dwellings, Dungarvan.*

The Dungarvan (Ireland) Urban Council have applied to the Local Government Board for a loan of £15,000 for the erection of artisans dwellings in the township.

*Housing Scheme, Bury.*

The Housing Committee of the Bury Corporation have had before them the question of the Walmersley housing scheme. They resolved to build thirty houses in pairs and eighty-four houses in blocks. For the purpose the committee decided to purchase 22½ acres of land.

*Town Planning, Ruislip.*

The order of the Local Government Board approving of the Ruislip-Northwood town-planning scheme has been issued. The scheme relates to an area of 5,906 acres in the urban district of Ruislip-Northwood and in the rural district of Watford.

*Houses, Barry Dock.*

At Barry Dock a Local Government Board enquiry has been held into the application of the District Council to borrow £6,500 for the purpose of securing land and erecting twenty-four houses under the Housing of the Working Classes Act, 1890. There was no opposition to the council's scheme.

*Libraries, Nottingham.*

A scheme for the erection of Carnegie libraries in the Meadows, Carrington, and Sherwood districts of Nottingham is under consideration. The Works and Ways Committee of the council have sanctioned an expenditure of £50,000 on street works and improvements. The Nottingham Board of Guardians contemplate extending the laundry at Bagthorpe.

*250 Houses, Greenock.*

It was stated at the last meeting of Greenock Corporation that copies of the report of the Housing Commissioners of the Local Government Board would be in the hands of members shortly. The Commissioners recommended that the Corporation should erect 250 houses at the earliest possible moment, and within one year provide other 250 houses, unless they could in the interval show that private enterprise was coming to their assistance.

*Rebuilding Scheme, Liverpool.*

The Housing Committee of the Liverpool City Council has decided to obtain and place before the October meeting of the City Council tenders for rebuilding in Gore Street, Jordan Street, and Sparling Street areas. The amount sanctioned for expenditure is about £25,000. The committee have also instructed the surveyor to facilitate the acquirement of other sites for rebuilding. These schemes will cost approximately £120,000.

*Houses, Irvine.*

Plans have been passed at Irvine (near Glasgow) by the Dean of Guild Court for the following dwelling houses to be erected for the Corporation of Irvine: Ten double cottages of three rooms, kitchen, etc., to be erected near Ballot Road; four blocks of room and kitchen houses (four houses in each block), to be erected on the south side of Kirk Vennel; and eight blocks of two rooms and kitchen and one room and kitchen houses (four houses in each block), to be erected in Ayr Road. The total cost of these three lots of houses, it is estimated, will be about £17,000.

## NEWS ITEMS.

*Waterproofing Swimming Baths.*

Among the latest swimming baths to be treated with "Pudlo," which makes cement waterproof, is one at Kirkham (Lancs.).

*"Ronuk" Floor Polish.*

We are asked to state that in the Ronuk (Floor Polish) Company "all the shares are held by Britishers, the board are all Britishers, and the whole of the staff are the same."

*Bradford's New "Kursaal."*

A new "Kursaal" at Bradford, which was opened last week, was designed by Mr. Walter Williamson, Licentiate R.I.B.A., the city architect. Cannot an English name be found for it?

*New Statuary for the Guildhall Art Gallery.*

Sir George Frampton, R.A., has executed for the Guildhall Art Gallery of the City of London marble busts of the King and Queen, commissioned by Aldermen Sir Edward Cooper and Sir Charles Wakefield.

*A Town-Planning Pamphlet.*

With a view to stimulating town planning at this time the Garden Cities and Town-Planning Association have issued a penny pamphlet written by Mr. E. R. Abbott on "What a Local Authority Must Do." It aims at the simplest possible explanation of procedure.

*St. Catherine's, Hatcham, Rebuilt.*

The rebuilding of St. Catherine's, Hatcham, which was destroyed by fire last year, has now been finished, and the church is to be reopened to-morrow. The architects are Messrs. Stock, Page, and Stock, who designed the original building, and the builders are Messrs. Higgs and Hill.

*Corbridge Excavations.*

The work on these excavations has now been completed for the year. The results obtained, though they include practically nothing of architectural interest, appear to be of considerable importance in their bearing on the history and topography of the Roman town, and the finds of pottery and other small articles have been above the average.

*Employment During the War.*

At last week's meeting of the Court of Common Council of the City of London, a circular letter was reported from Mr. George Dew, L.C.C., secretary of the London Building Industries Federation, asking civic authorities to put all possible work in hand to provide employment during the war. With a view to provide work during the coming winter, the Sanitary Committee of the Court, as the Burial Board, were authorised to have certain trenching, levelling, drainage, and other works carried out at the City of London Cemetery, which will give employment to about thirty men.

*"Building as Usual."*

In reviewing the present business position, our contemporary the "Hardwareman" preserves a sturdily optimistic tone with respect to the building trade. There is, it is noted, a decided effort being made in the country to preserve the continuity of work. . . . Public confidence has already been restored to a very large extent, and it is not unlikely that building operations will go on as usual, and work already begun be finished. Additional contracts, too, will be entered into, find-

ing work for many who in the general disturbance of trade are thrown out of employment. Banks are showing a willingness to help customers to carry on their enterprises, and ironmongers may do something towards keeping the flag flying by providing their customers with suitable goods.

*Changes of Address.*

Mr. William P. Horsburgh, surveyor, has removed his offices from 12 George's Crescent, to No. 44, Buildings, North John Street, Liverpool. New telephone number: Bank 406.

Claridge's Patent Asphalte Co., and Clarmac Roads, Ltd., announce as from September 26, 1914, their offices have been removed to No. 3, Central Buildings, Westminster, S.W., where all communications should be addressed. Telephone No., Victoria 1074. Telegrams: Claridge, Vic, London.

*New School at Bentley, York.*

A new council school at Bentley, Yorks, has just been opened. It is on the quadrangle system. At present the front portion only is erected and other portions will be added as required. The school has been planned to accommodate 394 scholars—122 infants and 272 in nine class-rooms. The infants' department, in the south wing, consists of class-rooms, divided by movable partitions so that if required all the three rooms be converted into one room. An assembly hall, 48 ft. by 24 ft., is arranged at the centre of the block of buildings. The plans were prepared by Mr. Stuart, architect, the West Riding Education Authority.

*Reinforced Concrete Sleepers.*

According to a design now being introduced by an Italian firm, reinforced concrete sleepers are constructed as beams having at each cross-section between the rail seats a resistance unproportionate to the bending strain. The central reinforcement consists of ties, one row at the top and another at the bottom, interconnected; or, in such rows, the inner rows being connected and the sleeper having triangular angular openings corresponding to the ties. The rails rest on elastic lugs, free at one end, or on a platform at the upper end, a post of reinforced concrete. The gauge, the bolt holes corresponding to the frustum of a pyramid or cone on a prism or cylinder, and bolts are provided having a shank shaped to fill the space wholly or partly.

*New Patent Brick.*

A patent for a reversible weatherproof brick having an inclined centre has been granted to Mr. James Middleton, bricklayer, of Elletson Street, Epsom. An outer wall built with this new brick will, it is claimed, be rendered absolutely weatherproof, and the fact that a brick having an inclined centre will be impossible for any one brick to be pushed out or dislodged from the wall. The invention has been made to adapt every type of brick, whether an old face brick, head-stone, external or internal corner, or other. Though the brick has an inclined centre, rendering one side an inch higher than the other (which is made weatherproof), when set in a wall it has exactly the same appearance as an ordinary brick. A wall built with this type of brick, therefore, is both weatherproof and much firmer and more durable. The first house to be built of this new brick is at present in course of erection at Poulton.



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## ELECTRICAL NOTES.

*The "Multifil" Handlamp.*

It has been a well-known fact for many years that an electric battery or cell will give a small current for a very much longer time *pro rata* than a large current. In other words, and referring to the output in terms of current multiplied by time, a cell will have a much larger capacity in ampere-hours at half the rated current than at the full rated current. To give an example, a small 4-volt accumulator battery used to drive a fan will run the latter continuously for thirty hours, but if only used for half-an-hour at a time it will run the fan for an aggregate of at least fifty hours or more. The same remarks hold for a primary cell, but in this case the phenomenon is even more marked. It would seem that there is an almost entire absence of "polarisation" at a low discharge, so that there is nothing to disturb the proper chemical action of the battery. Taking advantage of this fact, Messrs. Ward and Goldstone, of Sampson Works, Salford, have introduced a new electric hand lamp under the above name, employing two dry cells in parallel, instead of one single cell. Whilst the latter would keep the lamp burning for only four or five hours, if two are connected in parallel so that each is only discharging half the current that the lamp demands, the lamp will be kept burning for as much as thirty-four hours. It has also been found that by running the lamp for one hour daily, an aggregate of forty hours' burning can be obtained. A special switch puts the cells in parallel and in connection with the lamp, and when the light is turned off the cells are also dis-

connected from one another so that no local action can take place between them. The method of application in combination with the connections has received provisional protection.

*Capturing German Trade.*

There is no doubt that unless systematic action is taken in various trades and industries, the efforts to manufacture in this country what we have previously imported from Germany will not meet with rapid success. It is of no use for the retailer of a certain article (say a particular form of insulator) to send a sample to a pottery firm and ask them to provide him with a few gross. Before the manufacturer makes moulds or patterns for a new type, he wants to know what the probable demand will be, as otherwise it is impossible for him to offer the goods at a reasonable price without the risk of heavy loss. It is one thing to debit the cost of tools to a hundred gross, and another thing when a million gross are in question. The tools may cost actually as much as the making of the smaller quantity, so that the prime cost of each article in the smaller quantity will be enormously greater than in the larger quantity. Therefore, some sort of organisation is required in each trade to discover the probable demand for any particular article that it is now impossible to obtain from alien enemies. Mr. Sydney W. Baines, the chief electrical engineer of the borough of St. Pancras, has, failing such an organisation, set a very good example. He has had dimensioned drawings made of the different arc lamp globes used in his borough, which he has sent to the electrical trade papers for reproduction, and has accom-

panied these with an invitation to municipalities who use similar globes to communicate with him, with a view to arriving at the approximate quantity per annum. The object is to assist firms in a position to manufacture globes, in the hope that they will touch with him on seeing the letter.

No doubt Mr. Baines assumes, he does not know for certain, that the globes in question emanate from Germany or Austria. As a matter of fact, it has been common knowledge for years that these articles were made almost exclusively abroad. Like many other trades, the glass-blowing trade was driven out of this country not exclusively by the efforts of a foreigner, but also by the narrow policy of the trade unions. The case of the incandescent lamp manufacturers is present in great difficulties, owing to the dearth of glass bulbs, which are only made in this country by the General Electric Co., Ltd., and the Edison and Swan Electric Light Co., Ltd., at Lemington, Tyne, and Ponder's End respectively. Everyone knows the history of the bottle industry. Therefore, in seeking to apportion the blame for lost trade to present disabilities, it should be remembered that the manufacturers must be charged with the whole of the burden. It is all very well to write of want of technical education, lack of initiative, shortsightedness, and so on, but it is not remembered that in their efforts to reach Utopia many of the trade unionists have arrived at the converse. It is to be hoped that the present war will afford an effective object-lesson to both employers and workers in the science of common efficiency and economy.

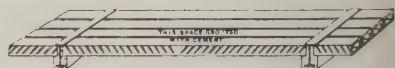
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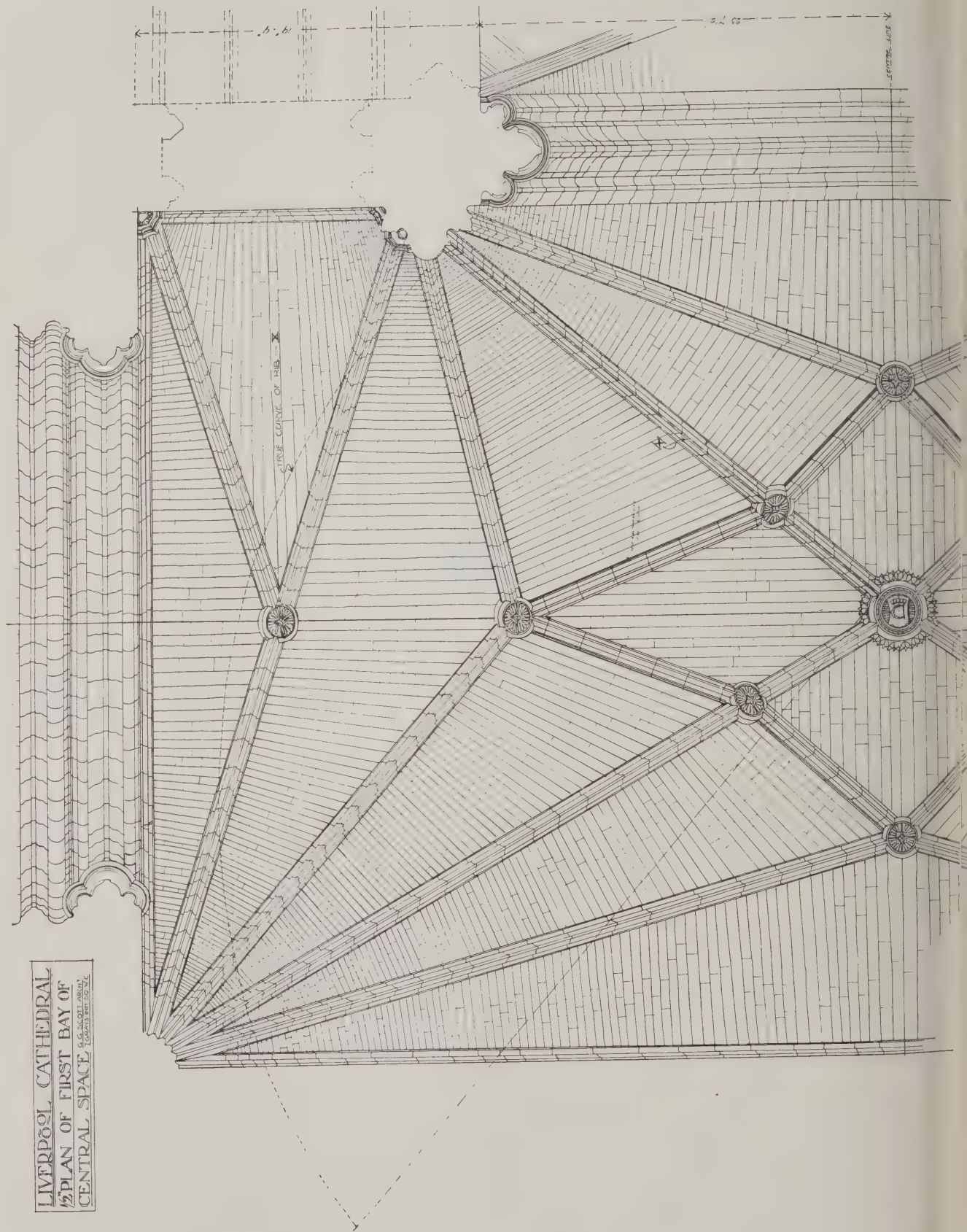
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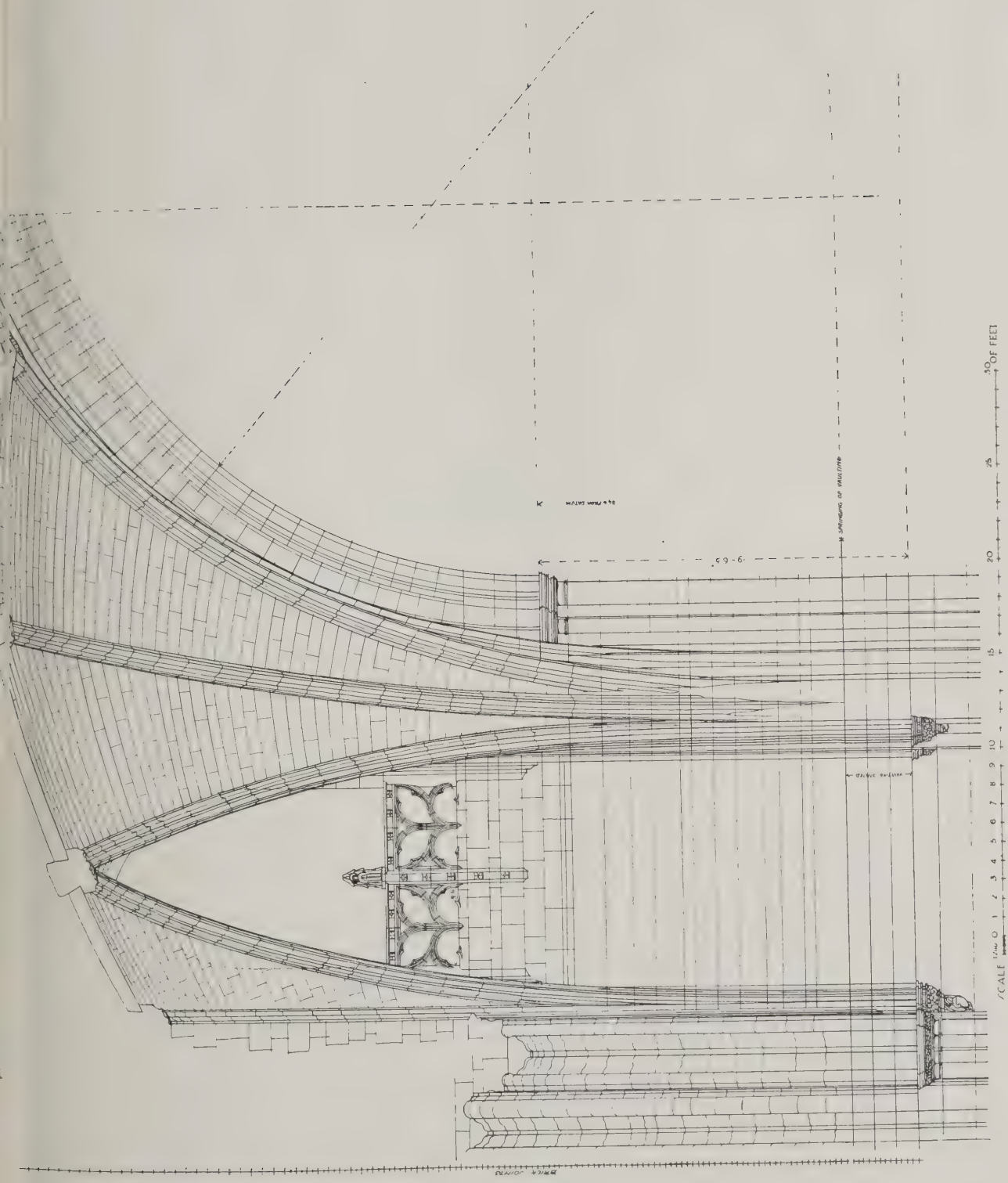


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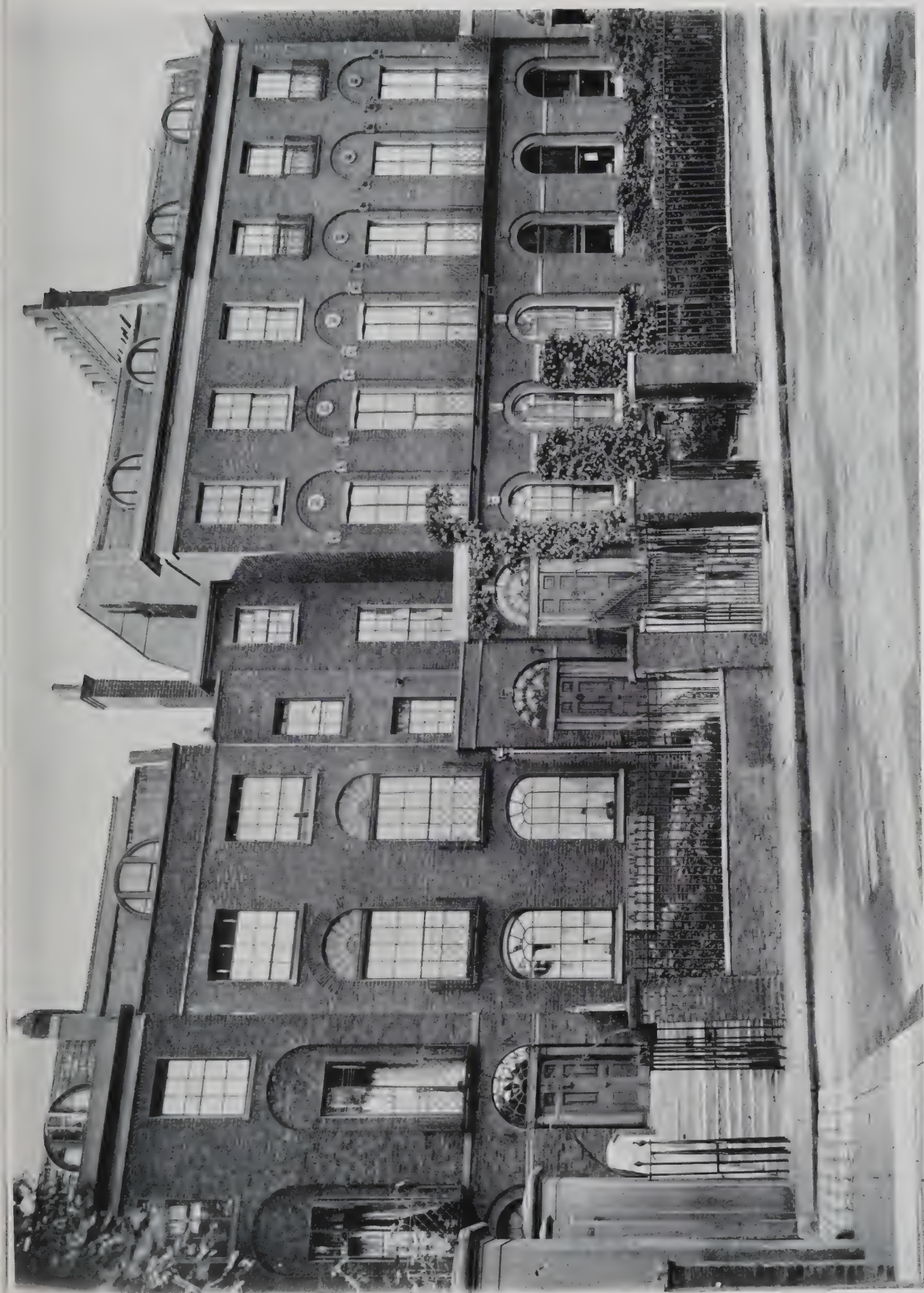


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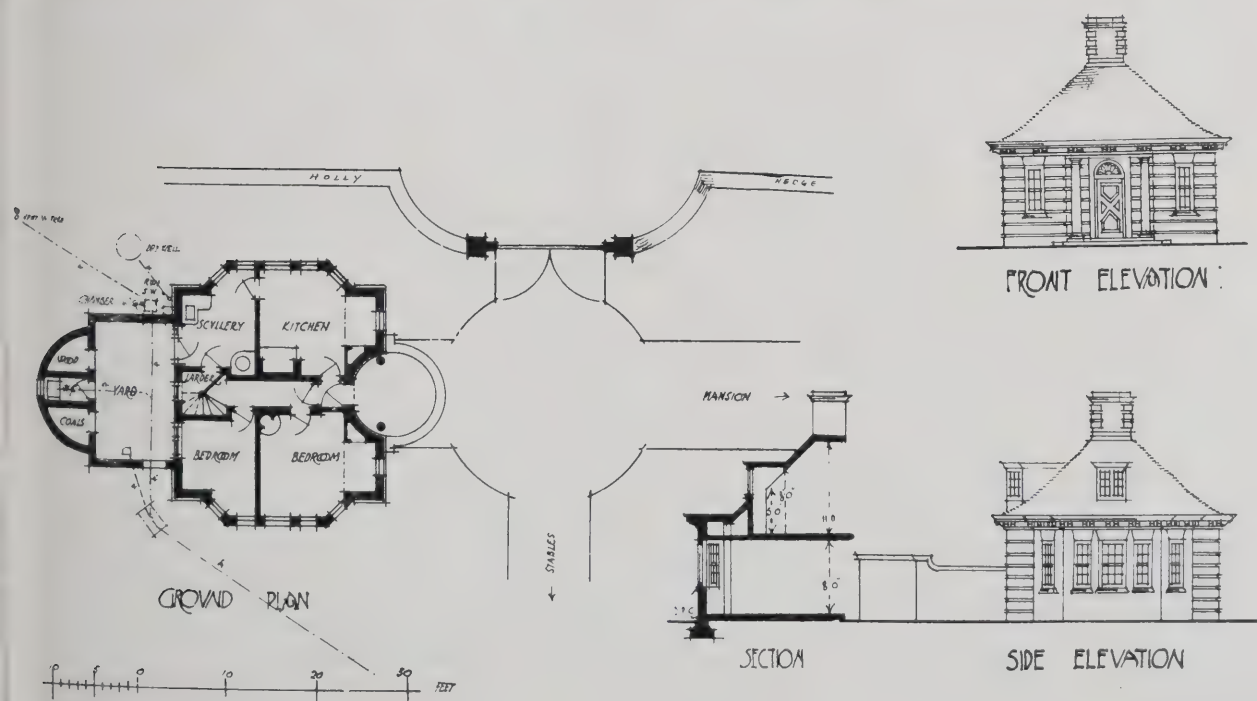


SMALL HOUSES OF THE LATE GEORGIAN PERIOD. XXVIII.—HOUSES ON KENNINGTON GREEN, LONDON, S.E.



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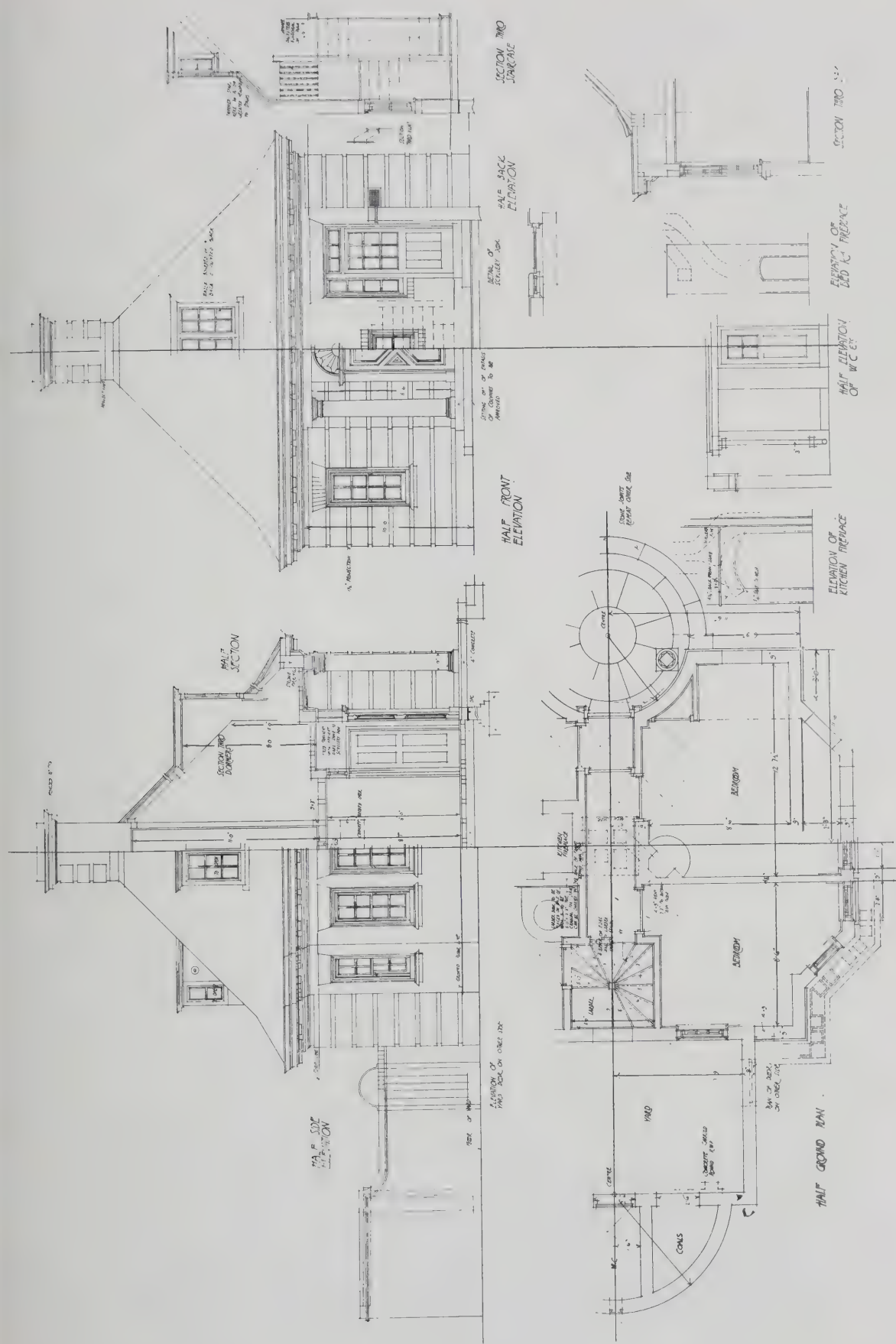
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# THE ARCHITECTS' & BUILDERS' JOURNAL.

Wednesday, October 7, 1914.

Volume XL. No. 1031.

No. 105.



(From Piranesi.)



# THE ARCHITECTS' & BUILDERS' JOURNAL.

OCTOBER 7, 1914.

CAXTON HOUSE, WESTMINSTER.

VOLUME 40. No. 103

## EDITORIAL.

IT is cheering to note that the panic policy of abstaining from public enterprise with the object of reserving for the relief of distress moneys that would be better devoted to preventing it is not being generally adopted. At Nottingham, for example, the General Purposes Committee have reported to the City Council the advisability of expediting certain works, such as street-widening, "which, under ordinary circumstances, would not be undertaken for some time to come"; the committee's avowed aim being "to relieve, if not to prevent, any unemployment that may arise in the city during the war." Upon these works they are going to spend some fifty thousand pounds, thus preventing distress instead of callously waiting for it to occur and then dissipating the money in "relief." It would appear, also, that the Local Government Board is by no means discouraging the erection of hospitals, whatever its attitude may be with respect to other municipal works; for the Public Health Committee of Ipswich Town Council, in recommending the adoption of plans for a new small-pox hospital, stated that the L.G.B. had strongly urged this provision, on the ground that the risk of an outbreak of small-pox is considerably increased by the war.

It would be a strange war that did not set up epidemics; and already there are rumours of a serious outbreak of typhus among the German troops. Apparently the Local Government Board is alive to its responsibilities with regard to hospital accommodation, and is very well aware that the generous and numerous offers of public buildings and private houses do not wholly meet the contingencies that must be assumed to be at least possible. Unfortunately, the requirements of the case amount to much more than provisional accommodation for the wounded. That will be necessary, and much more also. From the mere massing of men in the theatre of war, there arise insanitary conditions that nearly always result in outbreaks of virulently infectious diseases; and the other circumstances that are likely to give rise to plague and pestilence are too obvious and too horrible to name. It follows, therefore, that we must be prepared for conditions that can only be properly met by the erection of isolation hospitals specially constructed for the treatment of infectious diseases. These need not all be mere emergency hospitals, to be demolished as soon as the immediate occasion for them has ceased. Many municipalities require permanent buildings of the kind. Now, therefore, is the accepted time for putting the work in hand. Prompt action will secure a threefold economy—national, municipal, and social; for national waste from overlapping will be to this extent prevented, municipal needs will be served, and social distress will be averted.

A further economic consideration that encourages the building of the more permanent than of the more temporary type of hospital is, after all, the former does not cost very much more than the latter, and is ultimately cheaper. Proper attention and equipment are imperative for either kind, must cost pretty much the same in either case. It remains, therefore, only the question of the cost of the carcass, and here the difference is scarcely discernible when the newer materials of construction are judiciously employed. These, while light and easy to handle, admitting of cheap conveyance and construction, are nevertheless of sufficient durability to ensure all the permanency that is desirable in view of the rapid march of scientific progress, and the demanding greater mobility, has but scant respect for the fixed types that oppose it.

Choice of materials should be likewise governed to some extent by the consideration that the timber of a demolished infectious-diseases hospital is of no further use. It must be ruthlessly burned to ashes unless it is to be allowed to spread the infection with which it has become impregnated. True, it might be disinfected, but the only safe course is to destroy it utterly. The affair of match-boarding and corrugated iron is, therefore much dearer, in the end, than its initial cost would suggest. With the newer materials it is possible to obtain perfectly smooth sanitary surfaces which require no harbourage for disease germs, and can be thoroughly cleansed, an advantage that is of great value to the patients—who, it must be remembered, are subject to reinfection and relapse—and of great efficacy for the staff, who do not bear charmed lives. Infectious-disease hospitals, whether for emergency use or of more permanent type, must be so constructed as not to be so many centres of contagion. Even the necessity for their being in every instance erected under architectural supervision—erected, moreover, with deliberate calculation and forethought, not up in a helter-skelter attempt to overtake requirements that should be intelligently anticipated. This is pre-eminently a matter in which the Government should avail itself to the fullest possible extent of the services which the Architects' War Committee is most ably and most willing to render.

The Architectural Association are really doing splendidly. We refer, of course, to the very promptness, and thoroughness of which they are setting so fine an example as a recruiting agency. Not only were they among the first to respond enthusiastically to Lord Kitchener's appeal, but they have spared no effort to make the response substantial and practical. In establishing and maintaining their



Bureau they have shown organisation and ship that could not be bettered by veterans, the unselfishness with which they are doing so much hard work is the more remarkable at the very outset they met with a sort of which must have damped less ardent spirits. Fully enough, they desired to raise a corps that be specifically identified with the Association, when they were told that this was not permissible did not sulk in their tents, but adopted every means of inducing and helping their members the forces in any way that was acceptable to authorities. Not that those splendid young men any inducement. They responded joyously first call; but where difficulties arose, the A.A. ady with practical help that has enabled many fellow to join who otherwise would not have ble to enrol.

will be seen from an official notification on a page, the Association are now forming an ects' Volunteer Training Corps, with the two-ject of providing preliminary training for men g for vacancies in the battalions of their choice, affording those who cannot enlist the satisfac-rendering themselves fit for an emergency that fortunes of war may yet arise. Presumably this is to men who have reached the age limit, so that who, although past their prime, are still hale, may the privilege of attending the drills and try training which are in progress every day in ek at one or other of the training grounds which een placed at the disposal of the corps, and may the lectures on field-engineering, hygiene, field ing, elementary tactics, and so forth, which are r the rather exceptional advantages offered by architects' Volunteer Training Corps. Our congratulations to the A.A. on its splendid ours for King and Country.

New York, if one is to believe the plaint of the "ing Mail" of that city, the erection of a new ug is so penalised by regulations as almost to it a criminal undertaking. The plaint is worth g. Says the journal: "Some humane acts are jects of the punitive legislation embraced in the code. Other acts, supposedly good and to the s advantage, are the marks for oppressive and ous regulations that are punitive in effect. One wonders, for example, whether the Legislature ot regard the erection of a building in New York s a crime, and is surprised that the numerous earing on building construction are not frankly the penal code. Certain it is that this industry, f the chief sources of prosperity in this city, ng a vast army of artisans, is treated very much ough it were an outlaw. Building operations are ed with suspicious eyes by seven municipal is, hampered and hindered, baited and badgered, ted to a multitude of orders, often conflicting, y the swarm of inspectors who crawl in and out he buildings, impeding the workmen and often g them up for days and weeks. . . . The e lies in Albany, not in New York City. If the ere allowed to manage its own business these e bureaus would be combined into one, at a great g of men and money, and this would be a mercy e building industry, affording necessary relief t impairing the efficiency of municipal inspec- Architects and builders in this country have enced something of the same sort of vexatious eism. But it must be admitted that there is good h for a comprehensive official control in cities, h, when involving the observance of a set of ive by-laws, officialism often becomes pernicious al areas. The crime of putting up a building

might more properly be regarded in retrospect. There are many large new buildings in our midst which, in an ethical sense, warrant penal servitude for their authors, whose appropriate epitaph might thus be writ: "He was the architect of the — Building. May hyenas grin over his tomb!"—a modern version of the "Lie heavy on him, Earth," epitaph of Vanbrugh.

Architects are doing much, and may yet do a great deal more, to encourage building enterprise during the war. Mr. J. H. La Trobe, F.R.I.B.A., of Bristol, has, in the "Western Daily Press," a letter that corrects several current fallacies with regard to the present cost of building. He takes for example certain statements that had been made in the discussion of a housing scheme by the Bristol City Council, in the course of which it had been stated that timber had advanced forty per cent., and that the cost of each house comprised in the scheme would be increased by £20. As to the advance in timber, it is shown that at the time of writing this was actually from fifteen to twenty per cent. on normal prices, or about half what was alleged; and Mr. La Trobe shows that the alleged increase in the cost per house would represent an advance of eighty per cent. in the cost of timber! He states, further, that, according to a reasoned calculation, based on a comparison of ascertained current rates with the ordinary commercial prices, the total increase in the cost of building would be fully covered by five per cent. It would seem, therefore, that the burgesses of Bristol have jeopardised their housing scheme without warrant. What is equally regrettable is that, as Mr. La Trobe remarks, their "mere bogey" may deter others from building.

It is further suggested that as, in accordance with precedent, prices may, for various reasons, go up when the war is over, postponement of building is very unwise. "Timber may go down, but other materials will doubtless go up. There will be a boom in trade, and a stronger demand than ever for improved houses, schools, and other public buildings, which will involve an increase in the general cost of building." There is therefore nothing to gain and much to lose by delay.

Among the comparatively few persons who for the moment are able to withdraw their gaze from the tremendous scenes that are being enacted in the theatre of war and pay a little very necessary attention to home affairs, there is a growing feeling of inquietude, not to say indignation, at the attitude of the Government with regard to the internal well-being of the country. As, with much regret, we have previously noted, the Chancellor of the Exchequer, in language so directly opposed to his previous and still recent utterances that it was hard to believe him capable of such a *volte face*, actually urged upon public authorities the advisability of holding up municipal works, on the ground that the available funds might be required for the relief of distress—as it most certainly will be, if first the distress is created by persuading public authorities to abstain from necessary undertakings. And now the Government have, in a way, broken their promise to lend money to local authorities at the same rate at which it is borrowed by the Treasury; for it appears that whereas the Government is borrowing at rates ranging from three to three and three-quarters per cent., the Treasury rate for housing loans to local authorities is four per cent., which, it has been computed, adds implicitly another fourpence a week in rent for a £200 cottage. These may seem to be minor and unimportant matters compared with the catastrophic issues of the war, but nevertheless they cannot be neglected with impunity.



## HERE AND THERE.

A FEW weeks ago I made a sort of apology for referring to some matters which had no relation whatever to the war. Since then things have occurred in Belgium and France that clamoured for reference, and if the Germans continue in their wanton acts of destruction, which stop short at nothing, and do not even respect such a heritage of the past as Reims Cathedral, there will be a score of subjects which cannot be passed without comment in these columns. During the past week nothing concerning architecture has been reported that sets our ears tingling afresh—the battering of houses, the smashing of an old country church, or the pillaging of a venerable chateau hardly count now, so accustomed have we become to greater things—but at the moment of writing there is news of those great guns before the forts of Antwerp, and, remembering that the monster shells will go through 12 ft. of concrete at a range of several miles, one trembles for the fate of the Belgian capital, with its many fine buildings and wealth of Flemish art. There may, however, be other things to tell before Antwerp is a city of ruins.

In the newspaper columns we have seen within the past few days the fourth report of the Belgian Commission of Inquiry into the German outrages—this time at Aerschot. It is sad enough to read of the sacking of this old place, but a due proportion should be observed in everything, and the Commissioners would have done well to avoid such an anti-climax as occurs in their first sentences: "The church presents a lamentable spectacle. The altars, confessional boxes, harmonium, and candlesticks have been smashed. . . ." The harmonium might at least have been left out of account, because that instrument shares with the roll-top desk an American fame which we would not regret to see sullied. At a time when real gems of mediæval art are being destroyed, we need to harbour our chagrin and rage. The harmonium does not stir us.

The general resumption of building work in London has made much plainer than it was before the giant new hotel for Messrs. Lyons, which is being rapidly pushed on to completion. According to the Post Office, it is in Glasshouse Street, but it really belongs to Piccadilly Circus. Rising floor upon floor, it is high above the delightful County Fire Office, which claims our special attention as the only part of the Quadrant that has escaped the hand of the innovator. And soon no doubt there will be great letters to proclaim by day the latest of the giant hotels of the metropolis, while by night a veritable host of electric lights will perform a similar service. It is foolish, we all know, to rail against the big hotel, which is a perfectly legitimate development, offering scope, moreover, for splendid architectural effect. But the pity of it is, as in this case, that its advent means the destruction of all general architectural scale, and when seen round the corner its inevitable pipes and chimneys, its working clothes, so to speak, are a sorry sight. The Piccadilly Hotel, on the other side of the Quadrant, is a most deplorable example. I cannot myself find much delight in Norman Shaw's commencement of a new grandiose Quadrant in place of Nash's quiet stucco scheme, but there is at least a studied propriety in every part of it. Seen right opposite, it is a sturdy enough piece of work. It is only when we go a little way up the street and look back that we realise how its skyline is hopelessly spoiled by the back of the main block of the Piccadilly Hotel that rises behind it. And I cannot see how this is ever to be corrected. The back of the Piccadilly Hotel could only be blotted out from the Quadrant by buildings higher still than Norman Shaw's, which is already too high in relation

to the width of the street. So that instead of being the sunny thoroughfare which Nash left it, Regent Street would take on the cañon-like aspect of Victoria Street. What eventually will be done with the thoroughfare, it is impossible to say at present. There was, it will be remembered, a select architectural committee who formulated a scheme for the future development of Regent Street, but it seems doubtful whether the Commissioners of Woods and Forests, who are the ground landlords, will ever carry out the proposals, in view of the rebuildings that have already been carried out, and others that are even now proceeding. For my own part, I have given up all hope for Regent Street. The Commissioners started on their work too late. It was only after the shopkeepers had begun to play havoc with the aspect of what was once the finest thoroughfare in London, and a public protest had followed, that the official Department stepped in. Everyone knew that Regent Street would, inevitably, be rebuilt, and, accordingly, a proper scheme for the whole thoroughfare ought to have been formulated before individual firms began the mischief which has resulted in the obliteration of the good work Nash did, and the erection, in its place, of some of the most commonplace buildings. A million and a half was spent on the building of Regent Street, and the result warranted the expenditure. Many thousands are now being spent on rebuilding it in patches, and the result is unsatisfactory to the last degree. And before leaving this matter I would add that the house which Nash built for himself and his relation, Mr. Edwards, in Lower Regent Street, is up for sale, the Raleigh Club, its late occupant, having gone elsewhere. So we may expect soon to see the housebreakers at work, and a new block of shop premises in progress. We shall miss the old building. It is a very agreeable piece of work, set back in its little forecourt, and we would like to preserve it just as we would have wished to keep Cockerell's Hanover Chapel. If modern demands are inexorable, and of Nash's town house we shall soon have but a pleasing memory.

In the midst of the most serious affairs the trivial attracts us; that is why we have a liking for the Coldstreamer, sitting forlorn by the French roadside after fighting his way back from Mons with the best of them, who, on being offered sympathy for his injury, said it was not that he was depressed about, but the pipe he had lost in the fight! So, in an account of the sad havoc wrought in Reims, I light upon a triviality, a little technological inexactitude of Mr. Richard Harding Davis. Everywhere, he says, were shattered houses, a desolating sight, yet there were strange freaks amongst the debris; a breach in a high wall through which one gained a view of an old garden, sublimely undisturbed, while in another house "everything was destroyed except a marble mantelpiece over the fireplace in the drawing-room, on which stood a terra-cotta statuette of Harlequin." The author has come from the States, and may be using terms which are thoroughly good American, like "speeding up," and "boost," and "forms" for reinforced concrete, but in English, a marble mantelpiece over the fireplace suggests the piling of Pelion on Ossa. Undoubtedly there is such a thing as a mantelpiece, as well as a mantel-piece, but the one consists of a surround to the fireplace made up of jambs, lintel, and shelf, while the other, having an old rather than a modern meaning, refers to a "piece," generally a painting in a carved frame, over the mantel. It was probably the "mantel-shelf" which Mr. Richard Harding Davis had in mind. But he was writing for the public, and not for the benefit of captious architectural folk, and the public knows very well what "bannisters" are, whereas "balusters" are some unfamiliar technical contrivances.

UBIQUE.



## BUILDERS' MATERIALS: THE TRADE WITH GERMANY AND AUSTRIA.

ONE of the numerous ways in which architects may assist builders and traders in the reorganisation of the building industry which has become necessary in consequence of the war is to ferret with them upon the sources of supply of the various materials used in building. It is to be presumed that this is a matter to which the Architects' War Committee are devoting special attention. To do the thing thoroughly a strong sub-committee should be formed, representative of all the interests involved, and before including members of chambers of commerce, shipping agents, and other experts upon the general subject of international relationship in trade commerce.

It should be fairly easy to draw up, for immediate use, a list of materials that would afford invaluable assistance to architects for the inevitable revision of their specifications, and, for the guidance of traders and manufacturers, a list of the articles that, formerly imported from Germany and Austria-Hungary, must now be sought elsewhere, or, when possible, manufactured at home. To some extent this work is being done by the Commercial Intelligence Branch, who are issuing from 73, Basinghall Street, London, E.C., a series of bulletins, which, in pursuance of the Board of Trade scheme for assisting British manufacturers and traders to secure trade with British Possessions and foreign countries formerly in the hands of German and Austrian or Hungarian competitors, give information, valuable as far as it goes, on more than sixty departments of industry.

The Board of Trade Blue Books giving annual statements of the trade of the United Kingdom with foreign countries and British Possessions provide an enormous mass of statistical information, but, except in the hands of experts, these are almost valueless, and few architects or building traders having either the time or the skill to analyse and digest them. More generally useful would be a summary of the very valuable reports of British Consuls which have been published from time to time in the "Board of Trade Journal," from which a collection of extracts, thrown into cheap and handy form, would at the present time be of immense service.

In the meantime, it will be useful to indicate, in a brief outline, the probable effect upon the building industry of the cessation of imports from Germany and Austria-Hungary. This is the direct effect in which we are here mainly concerned; but in order to get the general effect of the breaking-off of our trade relations with those countries may not be overlooked or, of course, any serious disturbance of the general volume, character, and incidence of trade has an indirect but nevertheless powerful effect on the volume, character, and incidence of building—it is useful to recall that our total exports to Germany amounted to £2,571,964, and our total imports from that country to £70,048,152; while the respective figures for Austria-Hungary were £6,153,518 and £7,019,030; our total imports from all countries being £44,640,631, and our total exports £598,961,130.

In enumerating the chief articles that we have been accustomed to import from Germany, it will be convenient to adopt the order in which they appear in the Blue Book, but as it would be tedious to reproduce the actual figures, and round terms will answer our purpose sufficiently well, a formidable array of statistics may be advantageously avoided.

From Germany we got, among the raw materials, asphalt and bitumen to the value of about seventy thousand pounds annually; glue represented about twenty-four thousand; horsehair we bought to the extent of forty-one thousand, but presumably only a small proportion was consumed by builders for

plaster-work, etc.; copper ore is at the relatively low figure of five thousand, tin ore reaching sixty-three thousand, and zinc ore nearly forty-eight thousand. Fibres for brushmaking represented twenty-seven thousand, hewn timber stood at four hundred and sixteen thousand, sawn or split at two hundred and eighteen thousand, staves at eighty-three thousand, and mahogany at thirty-six thousand.

Among the imports of manufactured articles, electrical goods and apparatus, other than machinery, stood for about nine hundred thousand pounds, electrical machinery costing eight hundred thousand; window-glass, including shades and cylinders, a hundred and seventy thousand; plate glass, twenty thousand; flint glass, six hundred thousand; glue, size, and gelatine, a hundred and forty-eight thousand; brass and bronze manufactures reached the respectable total of a hundred and fifty thousand; pig iron and puddled bars, a hundred and ninety thousand; nails, screws, and rivets, two hundred and ten thousand; steel in various forms, two million four hundred thousand; iron and steel manufactures of all other kinds, three million two hundred thousand; lead, pig and sheet, forty thousand; tin, forty-eight thousand; crude zinc, one million five hundred thousand; zinc manufactures, two hundred and seventy thousand.

Painters' colours and pigments the Germans sent us to the value of nearly a million, which is more than half our total supply, and, except metals, is the heaviest item in the list, but there is a *per contra* account in exports of painters' colours and materials to the amount of a hundred and fifty thousand sterling. That cement is not mentioned is not greatly surprising, although one would not have thought the quantity imported from Germany too insignificant to record.

From Austria-Hungary we took hewn oak to the value of a hundred and twenty-four thousand pounds annually, and sawn or split timber about four thousand. Wood manufactures are recorded at thirty-five thousand for furniture and cabinet-ware, "other sorts" at twenty-two thousand. Brooms and brushes reach nearly twenty thousand pounds; chinaware, earthenware, and pottery, thirty-three thousand; electrical goods other than machinery, thirty thousand; window-glass and flint glass reach nearly two hundred thousand; glue, size, and gelatine, thirty-five thousand; painters' colours and pigments, nine thousand, as against twenty-three thousand pounds' worth which we exported to Austria-Hungary.

Our chief exports of what may be roughly called building-trade goods to Germany were iron and steel—two million two hundred thousand pounds' worth. For unmanufactured clay we are credited with a hundred and twelve thousand pounds, and with thirty-five thousand pounds for stones and slates.

From these roundly stated details it is easy to deduce how we stand with respect to the two enemy countries so far as intertrading with them in building materials and the like is affected. This is obviously but a sectional view of the case, but it is all that can be presented here. The much larger question of the world's commerce as it is at present affected by the war, and as it will be ultimately readjusted when the war is over, could only be dealt with in a bulky volume, in which would be set forth a full account of the world's material resources, and the proportions in which they are handled by the trading communities of the various nations. It is only in this way that traders may learn in what markets to push their manufactured goods, and whence they may best obtain their raw materials. The list of our imports given above encourages the belief that Germany and Austria-Hungary are by no means indispensable to us. It is evident that they have supplied us with few, if any,



manufactures that we could undertake with advantage for ourselves, and with few, if any, materials that cannot be obtained elsewhere. As for our exports to those countries, for these it will be unnecessary to find markets elsewhere, and this should not be difficult for a maritime nation possessing loyal colonies that henceforth will trade with the Mother Country to the entire exclusion of the bellicose foreigner, and whose own resources will be correspondingly developed. But it is a case for keen alertness and strenuous enterprise.

## CORRESPONDENCE.

*The War Committee and Architects' Practices.*  
*To the Editors of THE ARCHITECTS' AND BUILDERS' JOURNAL.*

SIRS,—The War Committee's letter, published in your issue for last week, in which they offer to look after the practices of architects who have enlisted, is somewhat belated. At the meeting at the R.I.B.A. on August 14 it was settled that they were to do so, and the Committee came into being and held its first meeting on the 18th, so that over six weeks have passed, during which time little would appear to have been done.

The Committee's letter further states that "it may be presumed that most of the architects who have had to leave their work in order to join the armed forces were able, before their departure, to place their work in the hands of colleagues or friends." This is probably the case owing to the long delay in taking action on the Committee's part, and its offer to these architects who have not been able to find friends looks suspiciously like "window dressing"; there are few remaining now.

All this makes one wonder if the Committee have any clear appreciation of how men to whom the call of duty has come have determined to serve King and Country; of the renaissance of the spirit which has enabled them to throw up everything at a moment's notice, and with an utter disregard of the material side of things. In the gloomy days of the strategic retreat a man joined in the morning and was drafted off in the afternoon; the bustle of the recruiting officer dwarfed his own affairs to small proportions. Assistants left in the evening and did not return the next morning. Their days since have started at 5.15 a.m. and have finished when they left off; these men are asked to fill up a form that resembles an income-tax return, and in many cases it is an impossibility owing to lack of time and sheer fatigue.

The War Committee has one letter from a well-known architect who has enlisted, and it reads somewhat in this fashion: "I have taken the shilling and joined the Engineers through the A.A. I believe the War Committee are going to look after our practices. Please forward this letter to the proper quarters."

It must be admitted that this is more interesting as showing the effect of war on a very brilliant man than informing to the individual who is to take on his work; it is also somewhat of a bombshell to be exploded in the quietude of a meeting, particularly inclined where procedure is concerned.

The letter was received and forwarded to the Committee on September 7; it was considered by them until about the 24th, when a letter was sent to the architect asking for more detailed information, and as no reply has been received nothing has been done. This is to say, for nearly a month a man's practice, which depended for help on the Committee, would have been utterly neglected had not friends stepped in.

The Engineers are now leaving Chatham for Curragh, and the A.A. can probably advise as to their movements; it would be as well to take precautions,

because the atmosphere of the barracks is not conducive to regularity in correspondence, and the men are so frequently moved.

With a full appreciation of the many difficulties with which the Committee has been confronted, and acknowledgment that criticism is easier than construction, there yet remains the impression that energy has been wasted in evolving a complicated procedure which has led them to follow the letter of their terms of reference rather than interpret the spirit of the same in vigorous fashion. The Committee's offer to help architects is qualified by the presumption that such services will not be needed; the offer to help the Government lacked any definition, and the resolution to the profession to keep on building was so much a futility.

These are disappointing results after over six weeks' work.

C. H. B. QUENNELLI

## THE PLATES.

*Doorway, Kennington Green, S.E.*

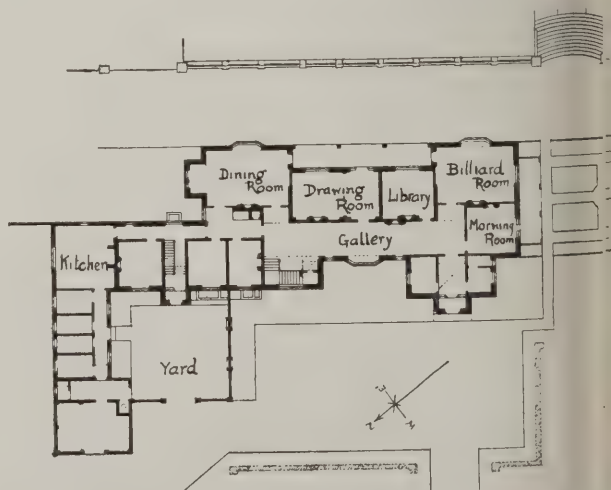
THIS delightful doorway is one of those in a terrace of late eighteenth-century houses at Kennington Green which was illustrated in a plate in last week's issue. The semicircular opening in the wall, filled in with delicate detail, was a favourite treatment for entrance doors employed by architects of the late eighteenth century. This particular example, with the slender columns and beautifully enriched transom, together with a graceful fanlight over, is suggestive of contemporary Colonial work in America.

*The Hall at Wemyss Hall, Cupar.*

Some exterior views and a plan of Wemyss Hall, Cupar, by Sir Robert Lorimer, were given in our issue of September 23, and to these is now added a view of the chief feature of the interior—the great hall. It is an apartment nearly 40 ft. square, elaborately paneled out, both on walls and ceiling, and hung with tapestries; the whole forming a most harmonious scheme. Two arched openings give access to a staircase and to the passage leading to the kitchen department; on one side are doorways leading to a drawing-room and to a vestibule; while the other side of the hall extends into a corridor, from which entrance is gained to the dining-room and the library.

*"Winterbourne," Edgbaston, Birmingham.*

The work of Mr. J. L. Ball is always interesting, more particularly for the individual character which he introduces into his designs. The house at Edgbaston, of which a detail is published, offers



"WINTERBOURNE," EDGBASTON, BIRMINGHAM: GROUP FLOOR PLAN. J. L. BALL, ARCHTCT.



example of this. It is essentially modern in its treatment, while based on old work, and there is the suggestion that the craftsmen or skilled building men have here had an opportunity of doing some useful work.

*The Customs House, Glasgow.*

George Ledwall Taylor's Customs House at Glasgow, near Jamaica Bridge, is a well-proportioned design, free from enrichment, its mass being well posed and the coat-of-arms skilfully introduced as a central feature. The design displays much restraint, to the point of severity, but it is not frigid in any way. The Doric colonnade is primarily a decorative feature, but it also has a structural function, inasmuch as it carries the upper part of the central projection. A piece of ashlar, the walling deserves notice.

*Neuves Vase in the Grand Trianon, Versailles.*

This is the last of the series of vases which have been published recently in this Journal—a series which is of interest not only for their intrinsic merits, but also as offering suggestions for the design of vases used as decorative features on or in buildings. The one now illustrated is of extremely graceful form, and its enrichments are of that delicate yet virile character

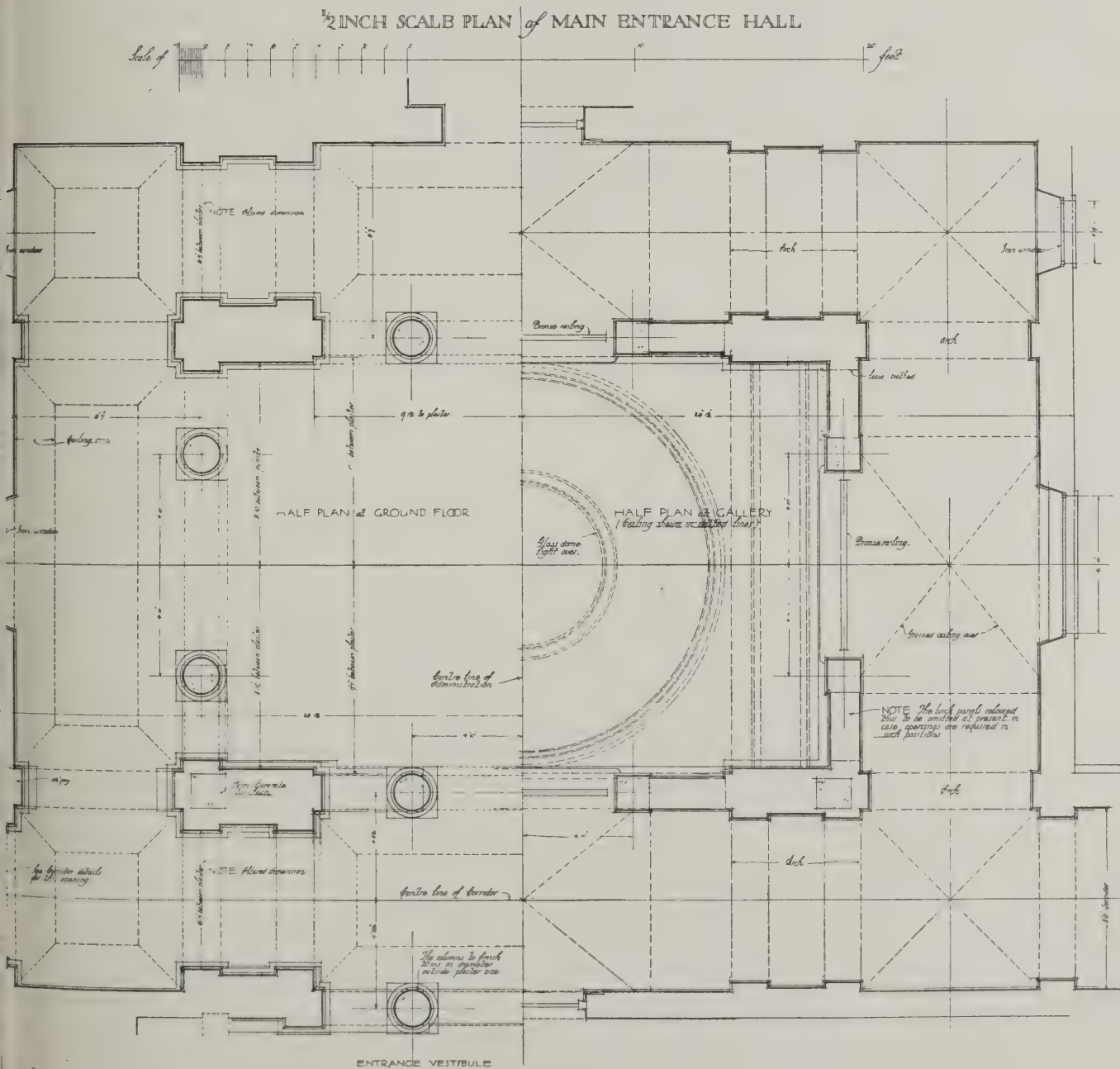
which has given lasting fame to eighteenth-century French architecture. The central embellishment shows Louis XIV. in customary Roman toga and surrounded by Franco-Roman goddesses, bestowing royal patronage on the Arts, represented by the respectful subjects in periwigs.

*Design for an Entrance to a Cemetery.*

This is one of the designs submitted recently for the R.I.B.A. Final Testimonies of Study. It is by Mr. A. B. B. Jopling, of the Liverpool School of Architecture.

*Working Drawing of Entrance Hall, King's College Hospital.*

The drawing reproduced is a half-inch detail of the entrance hall to the administration block of the new King's College Hospital at Denmark Hill, London, S.E. It is a very interesting example of construction. From the plan it will be seen that the hall is oblong, with columns on all four sides, and a gallery at first-floor level, the whole being covered by a reinforced dome, asphalted. The hall is very effective as executed, and though it does not lend itself to adequate photographic illustration the view reproduced suffices to show its general character.



KING'S COLLEGE HOSPITAL, DENMARK HILL, LONDON, S.E. W. A. PITE, F.R.I.B.A., ARCHITECT.



## THE DESTRUCTION OF REIMS CATHEDRAL.

Writing to "The Times" on the destruction of Reims Cathedral, Sir T. G. Jackson declares that "the loss to art by the destruction of Reims can hardly be conceived. In it French Gothic reached its climax. It had advanced a step beyond Chartres, which has about it still something tentative, and it stopped short of the incipient weakness of Amiens. It was the very crown and flower of French Gothic. The apse and chapels of Jean d'Orbais set the pattern for all that followed, and have never been surpassed. 'This is how we must do the work at Cambrai,' wrote Wilars de Honecort against the sketches he made of them while the walls were rising." The sculptures were unrivalled even by those at Chartres, and were finer than anything at Amiens. The groups of the Annunciation and Salutation in the west portal were comparable to the antique, with an added spirituality wanting in ancient art. The clerestory was filled with glorious glass of the 13th century like that at Chartres, Bourges, and Canterbury. All, or nearly all, this we must have lost irreparably. The glass must have been blown out by explosions, and the lovely statuary must be shattered and defaced. How much of the main walls and the great arcades with their beautiful capitals, or the storied west front with its wealth of imagery both inside and outside, is capable of repair and preservation we shall hope to know before long. I fear there will be little enough.

"We are told there was no military reason for this outrage. The cathedral was in fact serving as a hospital for German soldiers, who barely escaped destruction by the shells of their own side. Its ruin was simply an act of brutal savagery to glut the rage of an invader disappointed of the conquest of which he had made sure. And where is it to stop? Noyon, with a great cathedral scarcely less important to art, is not safe; Laon, with its stately nave and its five steeples, is at the enemy's mercy; St. Quentin, with its fine church and its delightful Hôtel de Ville, lies in the path of his retreat and may share the fate of Louvain.

"At all events let us know the names of the commanders to whom these atrocious outrages are directly attributable, that they may be handed down to infamy. But we know well enough from whom they have learned their lesson. This artistic ruin lies at their master's door. The Kaiser himself has aspired to be considered an artist like Nero. May we not hope that like Nero he may be brought to say, 'Qualis artifex pereo'?"

### Professor Hovelague's Protest.

Professor Emile Hovelague, Inspector-Général de l'Instruction Publique, makes an eloquent protest. In a letter to "The Times" he says: "You in England at all times have loved the noblest of our cathedrals. Yet I do not think that even you can realise all it means to us Frenchmen, all we lose beyond the common loss. It was the cradle of our kings, the high altar of our race, a sanctuary and a shrine dear from every memory, sacred in every thought, loved as our own flesh and blood, a link with our remotest past, the ever-speaking witness of the permanence through change of the ideals, aspirations, dreams, of our country; the very face and presentment of our land, whose smile, high in courage, tender in kindness, in all human gentleness most lovingly shone down on us from the kindred lips and eyes

of knights and kings and saints and angels carved by our forefathers 700 years ago in the semblance of the men and women around them. . . . Seven hundred years those grey cliffs of chiselled stone had risen above the furious tides of innumerable invasions, unhurt, spared by the most savage onsets of savage times, battered by every storm of heaven and earth; the noblest sculpture of the West remained entire until the German 'culture' came. And then, deliberately, methodically, slowly, the princes and captains of an accursed race, not the untutored brutes they led, mangled the sacred pile until all had fallen, the fairest, most human images in all the world, the forest of gigantic columns, the vast vaulted canopies of stone, majestic walls, and heaven-stained glass. . . ."

### French Official Report on Damage Done.

The damage done to Reims Cathedral is officially given in a Note issued by the Under-Secretary of State for Fine Arts, which says:—"Reims Cathedral was shelled several times. It had all the roofing burned out and the stained glass windows riddled and to a large extent broken. The northern tower of the façade, which was struck by shells in the upper part over the portal, was seriously damaged by flames. The sculptural decorations and statues cannot be repaired. Inside the church, straw, which had been collected for the wounded, caught fire, generally damaging the stone work. The wall facings are burnt and the masonry charred. Instructions have been given to protect the vaults by building temporary roofings."

## THE ARCHITECTS' VOLUNTEER TRAINING CORPS.

This Corps is being formed at the Architectural Association in order to train men at present prevented from joining the Regular Forces. The first aim is to recruit for the Army, and any men waiting to enlist in the Royal Engineers or other corps which are now closed, or who are waiting for a commission, will be welcome. Secondly, it is hoped that all who are prevented from enlisting under existing regulations will join and train and make themselves fit and ready to be called upon in time of need.

The Corps has had four training grounds placed at its disposal, these including a 25-yd. miniature range under cover, a 150-yd. open miniature range, and a revolver range. Drills and musketry training are in progress every day of the week, and a week-end camp is being started at once. As it is proposed to organise the Corps so as to provide Pioneer Companies to be attached to Infantry, lectures and classes will be arranged at 18, Tufton Street, Westminster, on the following subjects:

1. Field Engineering.
2. Field Hygiene.
3. Animal Management.
4. Field Sketching.
5. Elementary Tactics.

It is particularly desired that men should come forward to attend these lectures, with a view to becoming instructors of recruits.

The Corps is open to all architects and surveyors, and to the men of all kindred professions, businesses, and trades, and their friends.

There is a small entrance fee of 5s. and a subscription of 2s. a month. All enquiries should be addressed to the A.A. War Service Bureau, 18, Tufton Street, Westminster.

## ENQUIRIES ANSWERED.

### Books for R.I.B.A. Examinations.

JUNIOR (London, S.E.) writes: "What text-books would I require to study in preparing for the R.I.B.A. Preliminary Examination?"

—A list of books recommended to students appears in the R.I.B.A. *Kalendar*, and an amended list was given in an issue of September 17, 1913. As both lists are of formidable extent, enquirer should make his selection under the guidance of the instructors at the school at which he is preparing for the examinations.

### Rough-Cast for a Town House.

V. T. M. (Ipswich) writes: "Some time ago I saw in the journal a specification of rough-cast for a town house, and have lost trace of it. Please refer me to the issue containing it."

—The specification to which questioner refers is no doubt that which appeared in our issue of February 19, 1913, but as it is short, as well as generally useful, the substance may be conveniently repeated. Rough render external walls where shown with Portland cement and clean washed sand mixed in the proportion of one part of cement to three parts of sand, applied at least  $\frac{3}{8}$ -in. thick, well scratched as key for subsequent coat. Floating coat to be  $\frac{1}{4}$  in. thick, of similar mixture applied as soon as first coat has set hard. Follow on immediately with pebble coat composed of clean pea-grit and pebbles of average  $\frac{1}{4}$  in. or  $\frac{1}{2}$  in., etc.] gauge, mixed with neat cement and water to consistency of batter and dashed on the floating coat while still soft with the back of trowel, movable boards being set to receive the surplus. Collect this for immediate re-use. Twice distemper with (outside quality) or other approved washable distemper when work is thoroughly hard and dry. One of the approved waterproofing preparations may be advantageously added to the cement.

### Standard Notation for Reinforced Concrete.

J. B. (Streatham) writes: "Has a standard system of notation for reinforced concrete calculations been published? If so, where can it be obtained?"

—The preparation of a standard system of notation for reinforced concrete calculations or formulæ has for a long time engaged the earnest attention of the Concrete Institute, and the report of the Science Standing Committee on the subject is published in Volume V., Part II of their "Transactions and Notes," which have just been issued (Concrete Institute, Denison House, 206, Vauxhall Bridge Road, Westminster). This volume contains, as well as the standard notation for reinforced concrete, the standard notation as applied to structural engineering, a lucid and extremely interesting exposition, by Mr. E. Fiander Etchells, of the principles upon which it is based. Etchells mentioned the success which attended the notation in respect of the reinforced concrete symbols. It has been accepted in every direction to the exclusion of all counter-proposals. It has been adopted by the Royal Institute of British Architects and by almost every writer in English on the subject, and there is good reason to hope that it will eventually prevail in America. The entire notation, like that for reinforced concrete, is built up on the principle of an index, and the symbols are arranged in alphabetical order to facilitate reference.



# CONCRETE AND STEEL SECTION.

(MONTHLY.)

## REINFORCED CONCRETE IN THE USHER HALL, EDINBURGH.

Our issue of May 20 of the present year gave an illustrated description of the dome and roof of the newly erected Usher Hall, Edinburgh, and in the "Architectural Review" for July there is a full account of the architecture of the building, with illustrations showing the exterior of the façade to Grindlay Street, a plan view of the complete building, several interior views, a longitudinal section and two plans. It may be remembered that the late Mr. Andrew Usher made a bequest of £100,000 for the building and equipment of the hall, but the city authorities took about seven years to decide upon the site, and in the meantime Mr. Usher died.

In the construction of the hall very extensive use has been made of reinforced concrete.

A large portion of the retaining walls below ground level, the internal pillars supporting the heavy masonry of the outer wall and dome roof (see our issue of May 20), the grand tier gallery in cantilever, the upper tier gallery in cantilever, the egresses and upstands of galleries, the floors, beams, and lintels, the horizontal air ducts, and the roofs over the halls, orchestra, and organ have all been constructed of reinforced concrete. In the exception of the steel principals of the main domed roof there has hardly been a rolled steel joist used in the entire structure.

Among the many interesting structural features in this building are the cantilever galleries, which are constructed entirely of reinforced concrete.

In the grand tier level the horizontal cantilever of the gallery in cantilever projecting

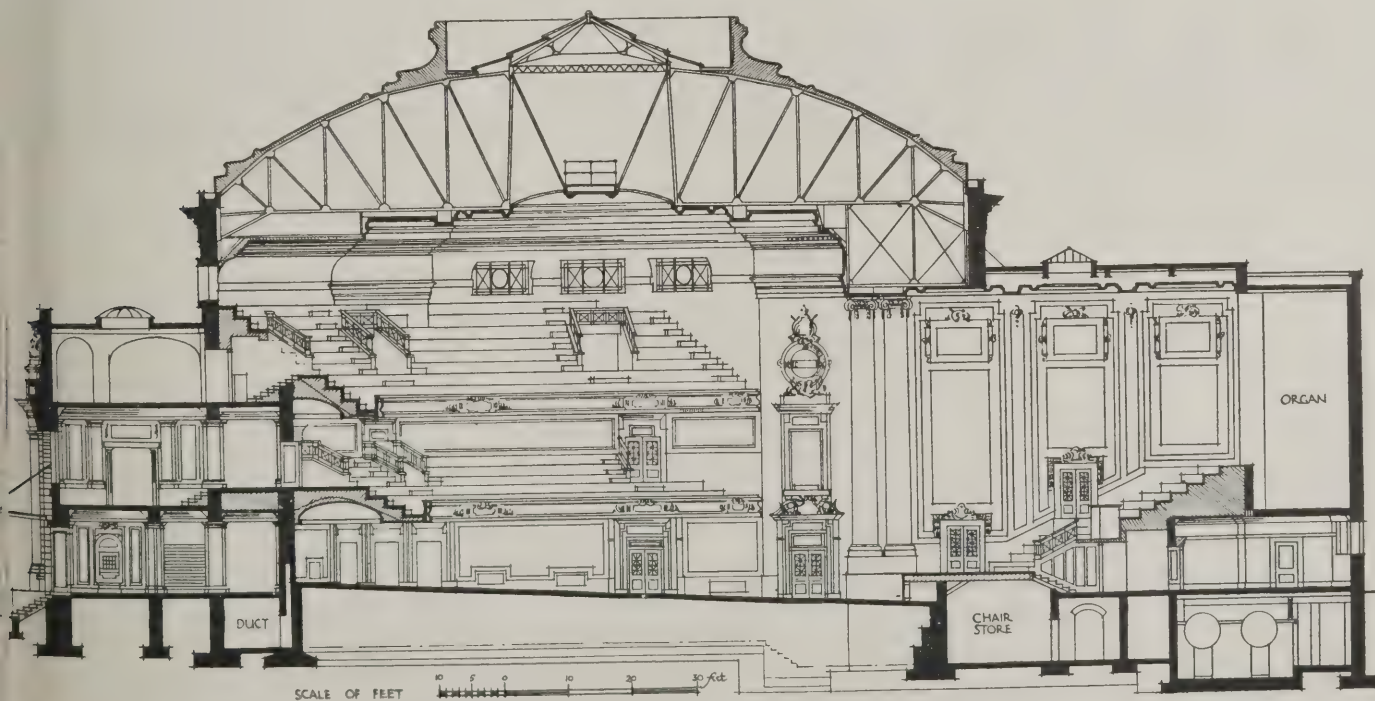


View of Centering in Position for Upper Cantilever Gallery.

beyond the supporting inner drum wall is approximately 3,100 sq. ft., and is supported by twenty-eight cantilever beams, the maximum overhang of these cantilever beams on the centre line of the building being 20 ft. 7 in. beyond the inner surface of the supporting wall.

The web of the back portion of the cantilever beams is pierced by three openings, each 1 ft. 10 in. diameter, this being necessary for the passage of air in the duct under the grand tier corridor.

The upper tier gallery covers approximately an area of 4,400 sq. ft., and is supported by



USHER HALL, EDINBURGH: LONGITUDINAL SECTION.

STOCKDALE HARRISON & SONS AND HOWARD H. THOMSON, JOINT ARCHITECTS.



ported by twenty-six reinforced concrete cantilever beams.

This gallery has a maximum horizontal projection in cantilever of 13 ft. 8 in. beyond the inner drum supporting the wall.

The horizontal portion of the reinforced concrete degrees of the seated portion of both galleries is 3 in. in thickness, and the vertical breasts are 4 in. in thickness.

The upstand fronts of both galleries are also constructed of reinforced concrete 4 in. in thickness, curved both in the longitudinal direction following the sweep of the galleries and also vertically.

The floors over the crush hall and foyers on the grand tier level below are formed by flat reinforced concrete slabs 38 ft. by 23 ft. 6 in., and only 12 in. in thickness, without any projecting beams.

The reinforced concrete roofs over the orchestra and organ had to be centred from the level of the basement, an average height of 60 ft., and the free spans and scantlings of the various beams are as follows:—

|                   | Span.    |     | Scantling. |          |        |
|-------------------|----------|-----|------------|----------|--------|
|                   | ft. ins. |     | Breadth.   | Depth.   |        |
|                   |          |     | ft. ins.   | ft. ins. |        |
| Main beam A       | 62 6     | ... | 2 3        | by       | 6 6    |
| Secondary beams B | 21 0     | ... | 1 6        | by       | 3 9    |
| Secondary beams C | 38 1 1/2 | ... | 1 3/4      | by       | 2 7    |
| Main beam D       | 42 0     | ... | 1 8        | by       | 4 7    |
| Tertiary beams E  | from 16  | 0   | ...        | 0 7      | by 1 4 |
|                   | to 18    | 6   |            |          |        |

The main beam A, in addition to the reinforced concrete roofs, supports the solid masonry wall of the dome to a height of 6 ft. 6 in. above the beam, together with a heavy projecting masonry cornice, and

four roof principals of the main dome roof, the total load being 300 tons over span of 62 ft. 6 in.

The beam A is probably one of the heaviest reinforced concrete beams of solid type which have so far been constructed in Great Britain.

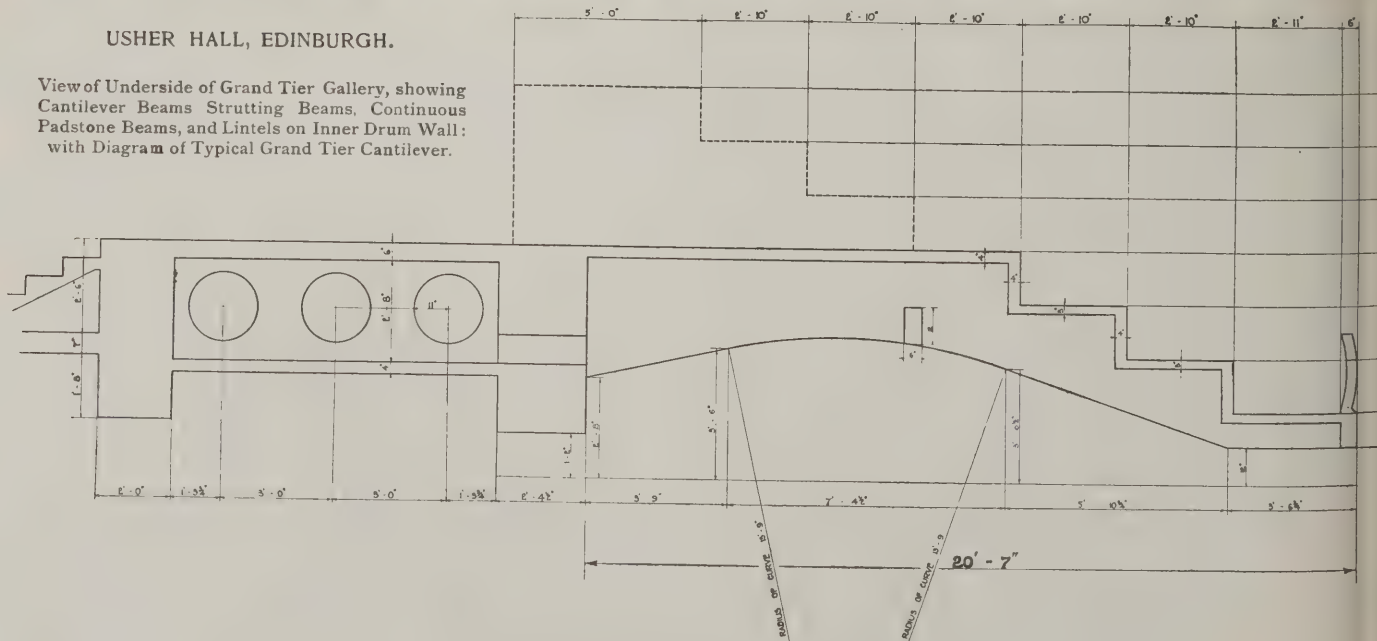
The roofs over the gallery crush are constructed with the reinforced concrete beams above the roof slabs, the object of this being to avoid any beaming appearing below the ceiling line.

The circular upstand kerbs of the dome roof lights are carried into these beams, the arrangement being a particularly effective one, and demonstrating the adaptability of reinforced concrete construction. The maximum span of these roof beams is 24 ft., and they are formed with open



USHER HALL, EDINBURGH.

View of Underside of Grand Tier Gallery, showing Cantilever Beams, Strutting Beams, Continuous Padstone Beams, and Lintels on Inner Drum Wall: with Diagram of Typical Grand Tier Cantilever.





web for waterways to allow of roof  
age. The roofs over spans not  
ling 15 ft. are formed without ribbed  
tions, the thickness of the flat roof  
varying from 4 in. up to 8 in.

hitects will note with interest the fact  
in the construction of the galleries  
is not a single pillar within the entire  
rium to obstruct the view of the  
rt platform and organ from any seat  
o hall. It is believed also that the  
ative effects obtained demonstrate  
he almost exclusive use of reinforced  
at in the structural part of the work  
rather than hampers architectural  
eter.

#### of Grand Tier Cantilever Gallery.

February 26 of the present year  
of the cantilever galleries were made  
e instructions and under the personal  
vision of the City Engineer of Edin-  
n. The tests were effected by concen-  
g on each gallery, as closely as the  
urnishings would permit, 400 men of  
olice force, marching the men on the  
ies, and "marking time" both in  
ary time and in "double time." The  
afforded by 400 men massed closely  
her, marking time "at the double"  
in unison, may be compared to the  
nued impact of a series of blows from  
d of 30 tons delivered at a uniform rate  
o blows per second.

the outhang of the grand tier gallery on  
entre line of the building is 20 ft. 7 in.  
nd the supporting wall, and under the  
me outhang of the cantilever the  
wing deflections were recorded:—

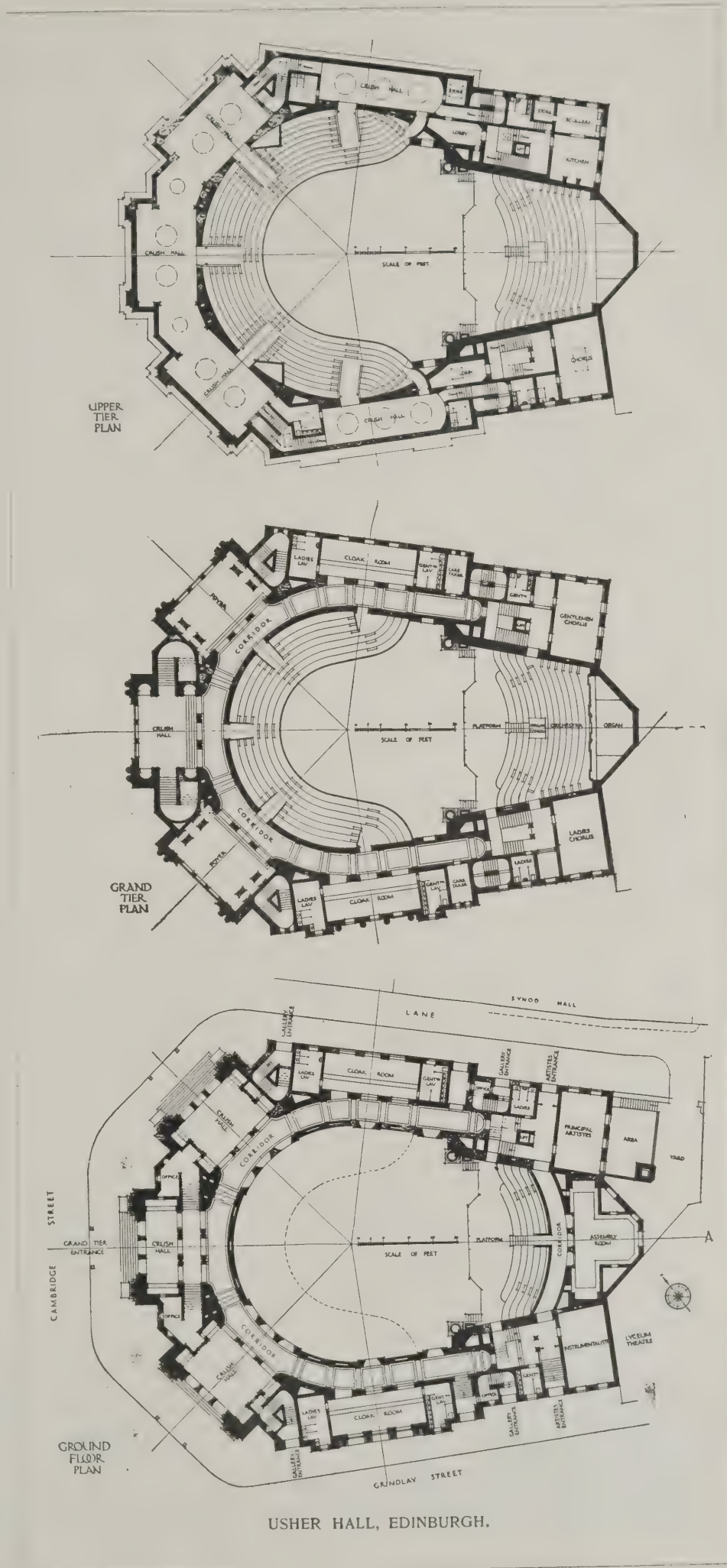
|                                                                                                               | Millimetres. | Inches. |
|---------------------------------------------------------------------------------------------------------------|--------------|---------|
| Deflector set in position and<br>gallery empty ... ..                                                         | 0.00         | 0       |
| 400 men massed as closely as<br>possible on gallery and<br>on both sides of centre<br>line of building ... .. | 0.60         | 1-      |
| do., and "marking<br>time" in unison and at<br>the "double" ... ..                                            | 1.20         | 1-20    |

the needle of the deflector during the  
arking time" test vibrated between  
and 1.20 of a millimetre, the ampli-  
of vibration being thus equal to the  
h part of an inch. The maximum  
ction under the impact moving live  
was therefore only the 1-20th part of  
inch, and under the ordinary moving  
load only the 1-40th part of an inch.

in the conclusion of the "marking-  
" test the order was given to clear  
gallery, and the needle of the deflector  
mediately responded in proportion to the  
oval of the load, and had again attained  
to within 0.05 of a millimetre (or the  
oth part of an inch) simultaneously  
the total removal of the load.

he tests were remarkably satisfactory  
conclusive in demonstrating the ex-  
ne stiffness of the reinforced concrete  
ilever beams and their perfect recovery  
er a vibratory test of unusual severity.  
the design of the reinforced concrete  
structural work the architects,  
srs. Stockdale Harrison and Sons  
H. H. Thomson, F.R.I.B.A., of  
ester, associated with them Messrs.  
A. Macdonald and Partners, reinforced  
crete engineers, 135, Wellington Street,  
sgow, and the close co-operation which  
maintained between the architects and  
reinforced concrete engineers from the  
when the first designs were made, in  
ember, 1910, materially helped in the  
idation of many complex structural  
lems.

he total cost of the Usher Hall is stated  
ave been £134,000, this being made up  
site £36,000, building and furnishing  
000, and organ and case £4,000. It is  
ainly one of the finest buildings in  
nburgh, or, indeed, in the kingdom.



USHER HALL, EDINBURGH.



### A NEW METHOD OF CONCRETE BUILDING FOR COTTAGES.

Mr. T. L. Watson, F.R.I.B.A., of Glasgow, has patented a system of construction which dispenses altogether with machinery in forming walls of concrete on a horizontal platform. In this system the walls of a cottage or other building are formed by means of a layer of concrete spread on a horizontal platform a few feet above the ground, or, in the case of an upper storey, a few feet above the joisting, and hinged in the middle, so that when the concrete has set each wall is turned over on its hinges into the exact position which it is to occupy in the building. As this platform in its horizontal position is balanced in the middle, due allowance being made for door and window openings, it follows that the lower half of the wall, in descending, automatically raises the upper half. No apparatus is employed, the wall turning over as easily as a door on its hinges, or as a fanlight on pivots. The platform having been adjusted to its vertical position before the concrete was applied, the wall naturally assumes its destined place with perfect accuracy, and the door and window frames having been laid down on the platform before the concrete was filled in, the house is at once ready for its roof and internal finishing; and, assuming the

platforms to have been formed of the roof spars and boarding, the greater part of the material will also be on the ground and ready for use, so that a few weeks more will see the completion of the building. There is nothing to prevent the concrete cottage from being roofed in the ordinary way, and the inventor thinks that the Americans have taken a more intelligent view of this subject than that which prevails in this country. With them concrete walls have been combined with every variety of ordinary pitched roofs. He adds, in view of possible objections, that the rough-cast dwelling is with us already and has a secure place in our affections, and the "rough-cast dwelling may be of concrete as well as, or better than, brick." The system is, of course, applicable to buildings of larger size than cottages.

### A STEEL DOME.

The photograph reproduced on this page shows the fine steel dome to the Palace of Horticulture at the Panama-Pacific International Exposition, which is to be held next year, opening in February and closing in December. The dome is of 152 ft. diameter, rising to a height of 185 ft., and is said to be the largest hemispherical dome in the world. It is to be glazed.

### "TAYLOR AND THOMPSON" FRENCH.

Messrs. Taylor and Thompson's known works, "Concrete, Plain and enforced," and "Concrete Costs," have been turned into excellent French, adapted to French conditions and requirements, by Mons. M. Darras, whose task—by no means a light one—in latter respect has been to substitute French equivalents for the original value of the tables. Costs being so largely dependent on locality, and on market fluctuations, it might be thought useless to transfer them from one country to another; the important point about them is not actuality but their relativity. Generally speaking, the proportionate costs are fairly constant, and the readjustment to local circumstances often resolves itself into a mere matter of percentage reduction or increase. M. Darras is therefore justified of his trouble. "Taylor and Thompson," packed with information, most useful and practical character, classic of its kind, and M. Darras deserves the gratitude of his countrymen for giving them so excellent a translation of it. The publishers are Messrs. H. Dunod and Pinat, 47 and 49, Quai des Grands Augustins, Paris, and the price 27 fr. 50 c.



STEEL DOME OF THE PALACE OF HORTICULTURE, PANAMA-PACIFIC INTERNATIONAL EXPOSITION, 1915.



## THE CEMENT GUN.

about six years ago that the "gun" was introduced, since time it has been extensively employed. By its means a coating of cement can be applied very rapidly to vertical surfaces, the repairing of damaged concrete, masonry, brickwork, etc. The accompanying illustration shows a modern type. It is operated as follows:—The material, which has been previously mixed dry in the right proportions, is thrown into the upper receiving hopper B which has a capacity of about 100 lbs. The upper cone valve is then opened and compressed air is admitted so that the air pressure in the hoppers B and C becomes equal. By the weight of the material, the lower cone valve opens and the material falls into the lower hopper. When the lower cone valve is closed. An air valve in hopper B emits the compressed air, and this hopper is then ready for another charge. Thus the lower hopper C is always under equal pressure, and the continuous operation of the gun is possible.

At the bottom of hopper C is a cone-shaped feed-wheel D, which has a number of pockets equally spaced on its edge. This feed-wheel is gear-connected to the air motor H, which keeps the wheel in continuous rotation. As the wheel rotates, it carries in its pockets measured quantities of material into the lower hopper of compressed air entering at E, which blows the material into the delivery hose connected at F. The pockets on this wheel are so arranged that before the material is entirely fed out of one pocket, feeding begins from the next one, so the flow of material is smooth and continuous. J is an agitator revolving with the wheel. K is the large gear wheel actuating the air motor H. L is the foot valve and G is the shut-off valve with a by-pass which automatically cleans the hose.

When the lower tank full of material, the operation of the machine proceeds as follows: Air is admitted to the air motor, which starts the feed-wheel in motion; the air valve G is then opened; as, however, the slide is closed, the air does not pass through the machine, but escapes through the by-pass in the body of the valve out



Application of Cement to Concrete Wall.

through the material hose, cleaning the hose and creating a suction which prevents clogging on opening the valve slide; this slide is then opened and the material begins to discharge at the nozzle.

The delivery hose is made of pure soft rubber covered with heavy canvas and may be 300 ft. in length and even more. It is usually made up in sections of 50 ft. each, united by special metal couplings. At the end of the hose line is the rubber-lined metal nozzle, which is also connected to a water hose in such a manner that a fine spray of water is added to the material as it rushes through the nozzle. A small screw valve enables the nozzle man to adjust the amount of water needed for the proper hydration of the material.

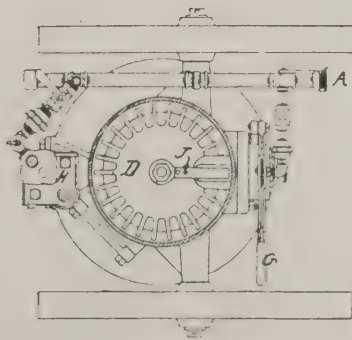
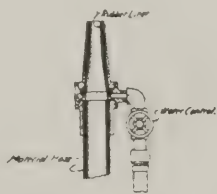
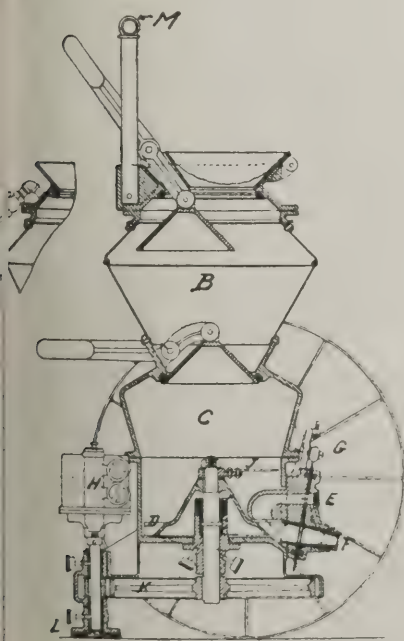
It is characteristic of the cement gun, and of greatest importance for the quality of the work, that the material is delivered "dry" through the machine into the nozzle, and that the necessary water for hydration is added at the moment of deposit. The hydration of the material

really takes place in the air between the nozzle and the place of deposit, and any loss of the binding power of the cement in transit is absolutely avoided. The initial set of the cement takes place on the structure and not in the mortar box. Another very important factor of the cement gun process is that only the proper amount of water for perfect hydration can be added, because all superfluous water is expelled automatically by the force of impact of the material at its place of deposit.

Before the cement coat can be applied, it is usually necessary to clean the surfaces, and different methods must be used to meet the special requirements. While scum and dirt in reservoirs can be often washed off, it is sometimes necessary to use a sand blast for this purpose; especially is this the case with steelwork. Before old masonry, concrete, or brickwork can be coated, it is frequently necessary to deepen the joints or even to roughen the entire surface, removing all loose and decayed particles from the structure. For such work the cement gun in itself is a most effective sand-blasting machine.

The weight of a cement gun is about 1,100 lbs. Its height to the top of the upper hopper is 54 in. The wheels are 36 in. high, and the extreme width is 37 in. The air line from compressor to gun is usually  $1\frac{1}{4}$  in. in diameter. The material hose is from 1 in. to  $1\frac{1}{2}$  in. inside diameter, and the water hose to the nozzle is  $\frac{1}{2}$  in. The air pressure is from 35 to 45 lb. per sq. in., and although an air compressor of about 100 cub. ft. capacity (free air) would suffice for all ordinary work, it is advisable to use a compressor of about 150 to 160 cub. ft. capacity. The cost of operating the larger compressor will be very little higher, and is more than compensated for by the increased efficiency of the cement gun.

The gun is best handled on construction work by two men, one to look after the machine itself, the other to apply the material through the nozzle. On the skill of the latter a good deal depends, for though a faulty operator cannot spoil the quality of the work, he can waste considerable time and material, and by unskilful application can detract greatly from the finished appearance of the work.



THE CEMENT GUN.





## COMPETITIONS.

### *Workmen's Dwellings, Northampton.*

The R.I.B.A. have sent out a circular in which they state that Members and Licentiates of the Institute must not take part in the competition for workmen's dwellings at Hollowell, promoted by the Northampton Waterworks Committee, because the conditions are not in accordance with the regulations for architectural competitions published by the Institute.

Members of the Society of Architects are requested not to take part in the above competition without first ascertaining from the secretary whether the conditions have been approved by the society.

### *Federal Parliament Houses, Canberra.*

Owing to the state of war existing, the Government of the Commonwealth of Australia has decided to postpone, until a more favourable time, the competition for the design of the Federal Parliament Houses to be built at Canberra. It was intended that the competition should be open to architects from all parts of the world, and that it should close in London and Melbourne during March, 1915.

### *Lay-Out, Walton Hall Estate, Liverpool.*

The awards in this competition are announced as follows: 1, H. Chalton Bradshaw and G. B. Rowlands, Liverpool; 2, Harry Pierce, F.R.H.S., James B. Walker, F.R.H.S., and W. L. Dolman, Licentiate R.I.B.A., Windermere; 3, E. Prentice Mawson and J. Radcliffe Mawson, Lancaster.

### *Working-Class Dwellings, Chapel-en-le-Frith.*

Premiums for plans and specifications for working-class dwellings to be erected at Town End, Chapel-en-le-Frith, have been thus allotted: 1, C. Flint, Buxton; 2, G. E. Garlick, Buxton; 3, S. Walton, Manchester.

### *Police and Fire Station, Redhill.*

The assessor appointed by the Town Council to adjudge the designs submitted for the proposed new police and fire station at Redhill has made his award as follows: 1, Joseph Sunlight, Manchester; 2, Alick G. Horsnell, London, W.C.; 3, Garratt and Simister, Birmingham.

### *The Alexander Thomson Travelling Studentship.*

Mr. C. J. Maclean, secretary to the Glasgow Institute of Architects, announces that, owing to the war, the trustees have decided, meantime, to postpone the competition for this studentship for one year. All students who were eligible this year, and have now gone on military duty, will be allowed to compete when the competition is held.

## LIST OF COMPETITIONS OPEN.

OCTOBER 14. TECHNICAL SCHOOLS AND EDUCATION OFFICES AT SOUTHPORT.—Premiums £75, £50, and £25. Assessor, Paul Waterhouse, F.R.I.B.A. Particulars, on deposit of 5s., from T. E. Jarratt, Town Clerk, Southport.

OCTOBER 31. LAY-OUT OF GROUNDS AT ADELAIDE.—Premiums £500, £200, and £100. Particulars from Secretary, Royal Agricultural and Horticultural Society of South Australia, 23, Waymouth Street, Adelaide.

OCTOBER 31. POLICE BUILDINGS AND FIRE STATION AT ST. HELENS.—Premiums £100, £50, and £25. Particulars from A. W. Bradley, M.I.C.E., Town Hall, St. Helens.

NO DATE. ELEMENTARY SCHOOL AT TOTTENHAM.—Architects who wish to compete for this school (900 scholars) are invited to send in their names, with particulars of schools designed by them, to W. Mallinson, Clerk, Education Offices, Phillip Lane, South Tottenham, London, N.

NO DATE. INFANTS' SCHOOL AT BRISTOL.—Limited to architects practising in Bristol. Particulars from Wm. Avery Adams, Guildhall, Bristol.

NO DATE. ACADEMY AT PERTH.—Limited to architects practising in Perth. Particulars, on deposit of one guinea, from R. Martin-Bates, Clerk, School Board Office, Perth.

## NEWS ITEMS.

### *New Entrance to Bradford Town Hall.*

The new entrance to the Town Hall at Bradford is now completed and is to be formally opened in the near future.

### *Tenders Wanted for Military Huts.*

Tenders are invited for the erection of corrugated iron and timber sheds for the accommodation of about 1,100 men. Plans, specification, and particulars may be obtained on personal application to Major Mackay, the Public School Battalion, Kempton Park, Middlesex.

### *Waterproofing Grammar School Swimming Baths.*

We are informed that the architects for the Grammar School swimming baths at Sedburgh, which have just been completed, speak very favourably of the efficacy of Pudlo in the treatment of the cement for these baths. There has been no trouble since they were built, either from the ingress of soil water or from "seepage."

### *New Infirmary at Bristol.*

Southmead Infirmary, just completed by the Bristol Board of Guardians, has opened its doors first to wounded soldiers. At first it was thought that between 500 and 600 beds could be placed at the disposal of the War Office. But it has been found possible to extend that number beyond 800, and so, with the beds at the Royal Infirmary, there will be accommodation for over 1,000 soldiers in Bristol.

### *New County School, Hendon.*

Hendon County School, which was opened on September 28, comprises twelve class-rooms, a hall 80 ft. by 30 ft., with dining-room, workshops, laboratories, etc. The provision is for 300 scholars. The elevations are in purple-grey bricks, with red brick and stone dressings, and the roofs are tiled. The total cost, including site, has been about £22,000. Mr. H. G. Crothall, F.R.I.B.A., is the architect, and Messrs. W. Gibson and Co. are the builders.

### *Reinforced Concrete and the War.*

A remarkable story of German preparations for war has come from a resident in the Maubeuge district of France, to a member of the staff of Messrs. Pilkington Bros., glass manufacturers, St. Helens, who have works at Maubeuge. The letter states: "The Germans had installed, a long time before the war, portions of some of their big 42 cm. (about 17 in.) guns, on a farm, under the pretext of boring works

for water, and had put in foundations reinforced concrete, so that everything ready, and as their guns had a longer range than those of the Maubeuge, it was not difficult for them to conquer

### *For King and Country.*

To the lists previously published in the Journal of architects who have joined the colours must be added the following: Mr. G. Reavell, A.R.I.B.A., of Epsom, now Major G. Reavell, of the Northumberland Fusiliers; and members of his office staff, Mr. A. Hussey (Yeomanry) and Mr. C. B. Cook and Fred. Marshall (7th Northumberland Fusiliers). Mr. Albert Perkins, of the principals of the firm of Albert E. King and Co., architects and surveyors, of Loughborough, London, has enlisted in the Royal Fusiliers and at the present time is in training at Epsom. Mr. Keith W. Hamilton, a member of the staff of Messrs. Elliott, Brown, civil engineers, of Nottingham, has also joined the same corps. We shall be glad to receive early intimation of other accessions, which must in every case be properly authenticated.

### *Building and the War.*

Referring to the particulars which have been given under the above heading in recent issues, Mr. W. A. Pite, F.R.I.B.A., informs us that several buildings destroyed by him which were held up at the commencement of the war have since been proceeded with, there being at the present time a much better general tone in the building trade, due to the more hopeful outlook. One of Mr. Pite's new projects is the Hospital for Skin Diseases, which is being built in Blackfriars Road by James Carmichael. Another is the addition to the Hospital for Diseases of the Chest at Victoria Park, which is erected shortly (or at least a part of, at a cost of £10,000). In a third case, of a hospital at Sevenoaks estimated at about £8,000, the difficulties in connection with tenders which first arose have been overcome, and this work will be proceeded with as soon as the necessary materials can be got together.

### *University Museum Lectures.*

It has been decided to resume the courses of lectures given by Mr. Basil Fletcher, F.R.I.B.A., at the London museums. The lectures on "Ancient Architecture" are delivered in the lecture room of the British Museum on Thursdays at 4.30 p.m., beginning October 1, attending the lectures having the advantage of visiting after the lecture the works of the Egyptians, Greeks, Romans which the lecturer explains and describes. The lectures on "Classical Architecture in Europe" are delivered in the lecture theatre of the Victoria and Albert Museum on Mondays at 5 p.m., beginning October 5, and this museum is rich in examples belonging to this period. After the description of a typical Gothic cathedral with all the evolution of arches, buttresses and pinnacles, four lectures will be devoted to the wonderful Gothic cathedrals of France, and nine lectures to our English cathedrals, abbeys, and colleges with special lectures on Westminster Abbey and the Tower of London. A sessional course is recognised for the University of London Diploma in the history of Art. Full particulars may be obtained from the Hon. Secretary, Woburn Square, W.C.



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## PROJECTED NEW WORKS.

### *Dust Destructor, Aylesbury.*

The Aylesbury Council have appointed a committee to consider the provision of a dust destructor.

### *Cottages, Rathdown, Ireland.*

The Rathdown No. 2 District Council have decided to build forty-four cottages at a cost of £8,800. Mr. R. M. Butler, 23, Kildare Street, Dublin, is the architect.

### *Housing Scheme, Wallasey.*

The Wallasey Town Council have under consideration a scheme for the erection of thirty-two workmen's houses and eighteen cottage flats at an estimated cost of £11,540.

### *Extension, Paignton.*

The Local Government Board have held an enquiry into the application of the Paignton Urban District Council for permission to borrow £2,537 for an extension of the isolation hospital.

### *County Offices, etc., Droitwich.*

The Worcestershire County Council propose to spend £10,000 for new county offices and £3,600 for new police buildings at Droitwich. They have applied for permission to borrow the money.

### *Band Pavilion, Folkestone.*

The General Purposes Committee of the Folkestone Town Council, at their last meeting, passed a resolution urging the council to proceed with a scheme for the erection of a band pavilion at a cost of £20,000. Plans have been prepared by Messrs. Palmer-Jones and Grant, the architects. It is proposed to construct the

framework of the building floors and beams of reinforced concrete, and this work has been designed by Mr. E. P. Wells, Past President of the Concrete Institute.

### *Housing Scheme, Bedford.*

Bedford Town Council have agreed to the appointment of a special committee to prepare a complete scheme for the erection of dwellings for the working classes in the borough, and present it to the Council at an early date.

### *Building Schemes, Richmond.*

Richmond Town Council, at its last meeting, referred to the Health Committee a proposal to at once put in hand the erection of more workmen's dwellings in the borough. It was decided to write to the Chief Commissioner of Police urging the desirability of putting in hand the building of the new police station on the Red Lion Street site.

### *Baths, Lewisham.*

At the last meeting of the Lewisham Borough Council the Baths Committee reported that they had again considered the question of providing an open-air swimming bath, and, being of opinion that it was desirable, recommended that the committee be instructed to select suitable sites and submit them, together with schemes for construction and approximate estimates of the cost. The recommendation was adopted.

### *Workmen's Houses, Penzance.*

The Penzance Town Council have adopted the plan of Mr. F. G. Drewitt, architect, for the erection of twenty-two workmen's dwellings, in crescent formation, on the Weeths Field. The estimated

cost of the buildings is £3,650, with for roads, sewers, and water mains. Tenders are to be invited. The houses to be of concrete in situ, finished with stucco and roofed with red tiles.

### *Baths, Coleraine.*

The Portrush Urban Council have under consideration improvements to the Coleraine Town Hall and the construction of public baths there at an estimated cost of £5,000.

### *Sanatorium, Kirkcaldy.*

Kirkcaldy Town Council have decided to proceed with the erection of a new sanatorium, and schedules are being prepared so that the work may commence immediately. The building will be erected on ground recently acquired by the town, and will contain six beds.

### *Housing Scheme, Wolverhampton.*

A Local Government Board enquiry has been held into the application by the Wolverhampton Town Council for power to borrow £12,000 to carry out a housing scheme. It is proposed to erect six houses in Green Lane for working men.

### *Building Plans, Croydon.*

The Croydon Borough Council have approved plans for building work as follows: E. Bates, converting two houses into bank premises, Lower Addiscombe road; A. W. Dawson, one house, Teatons road; C. Banks, one house, Raynham avenue; Baldwin and Sons, two houses, Duppas-avenue; London County Council, 26 houses, Northborough-road; R. Manser, six houses, Woodside Court road; G. Cook, two houses, Crowe road; J. B. Hemmings, one house, Shillock park-road.

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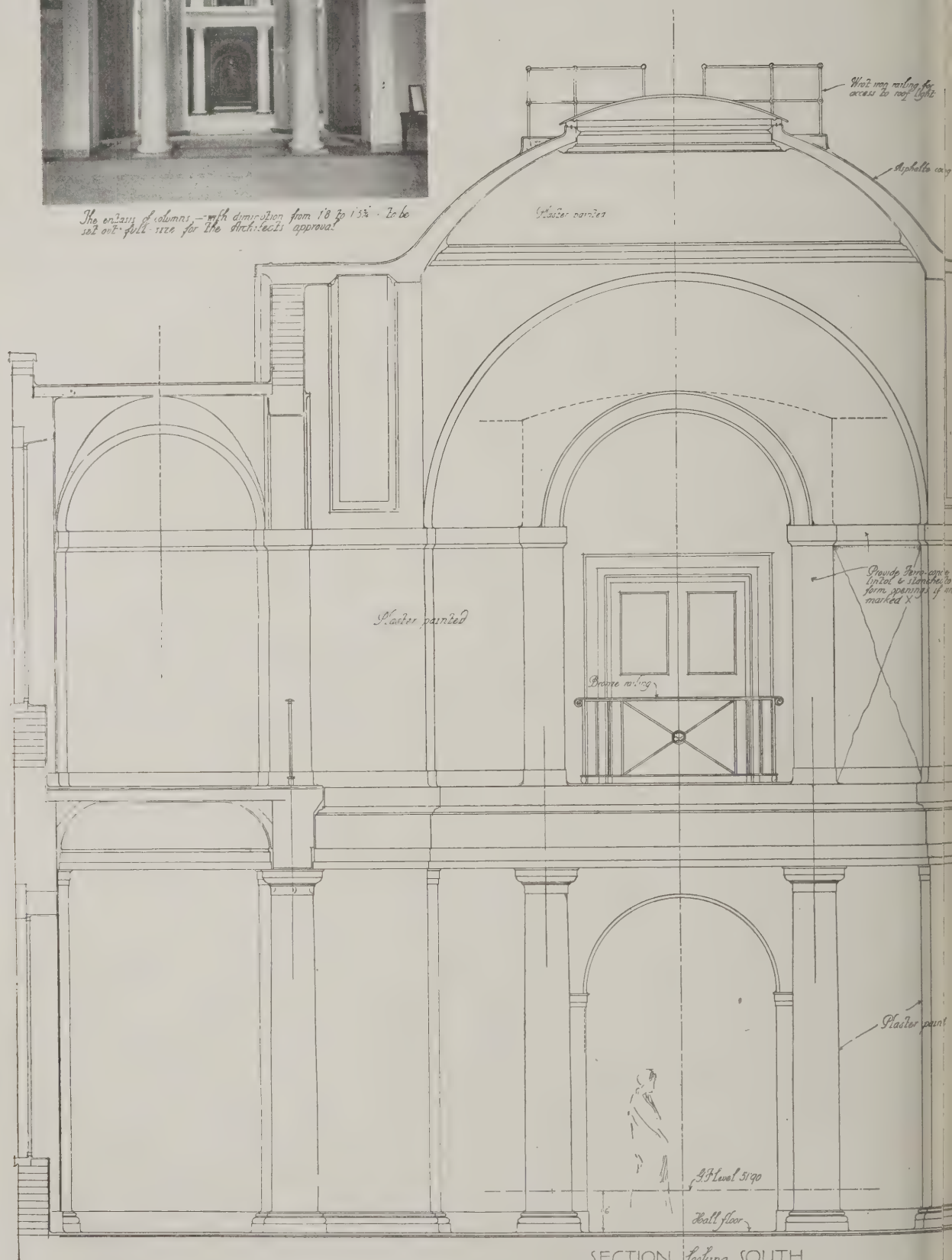


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The entrance of columns - with dimensions from 1'8" to 1'3 1/2" - to be set out full size for the architect's approval.



SECTION Looking SOUTH

Scale of 0 1 2 3 4 5 6 7 8 9 10



Detail No. 8.

bell floor

bell floor

West Exterior elevation  
pinch scale

51' 0" 00

48'

15' 9"

15' 9"

NOTE: variation in size  
of arches between plan & section

15' 9"

51' 0" 00

PART SECTION looking EAST

Wm. D. P. 1884  
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VASES. XII, SÈVRES VASE IN THE GRAND TRIANON, VERSAILLES.



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SMALL HOUSES OF THE LATE GEORGIAN PERIOD. XXIX.—DOORWAY, KENNINGTON GREEN, LONDON, S.E.



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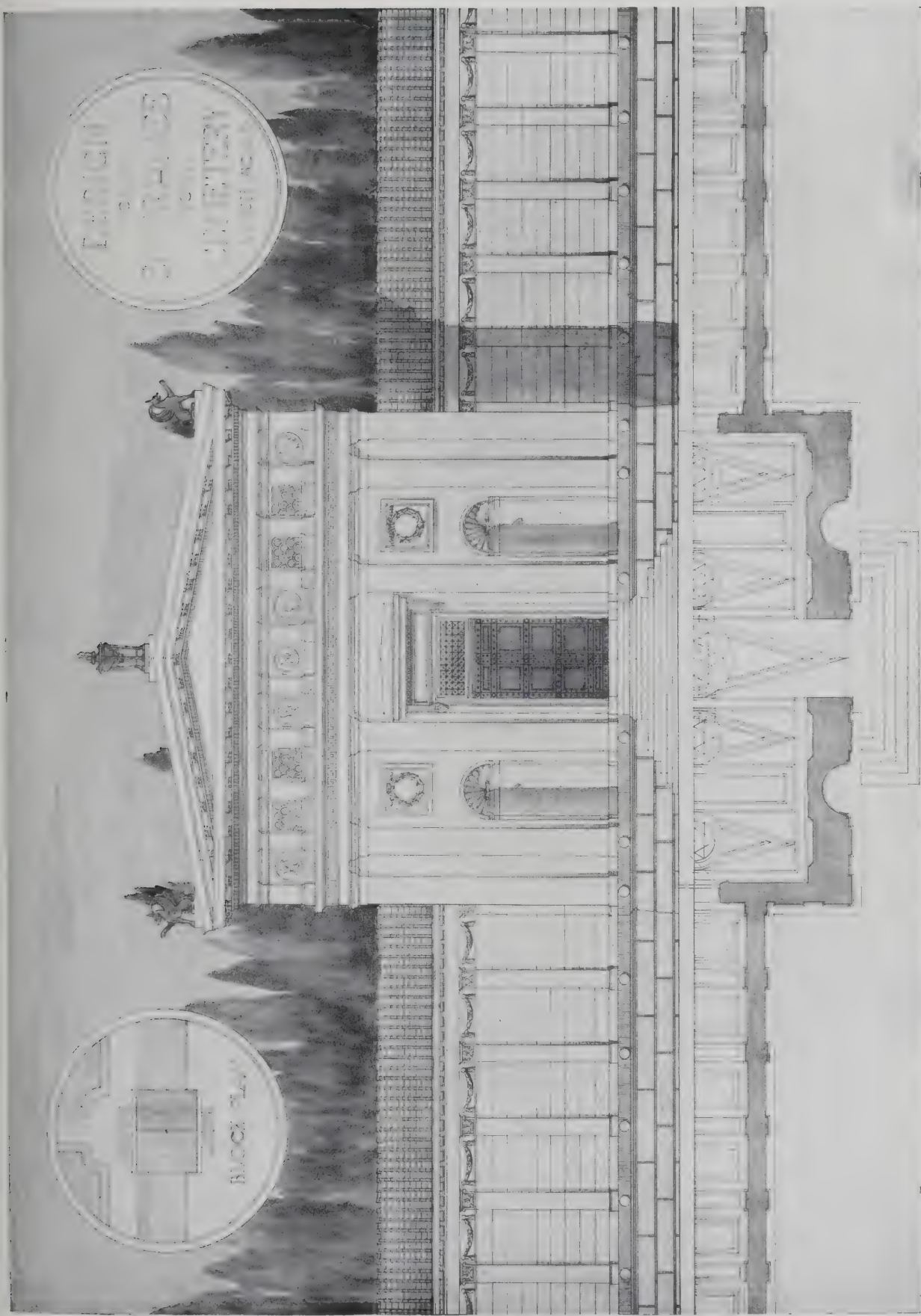
MONUMENTAL ARCHITECTURE. XXIX.—THE CUSTOMS HOUSE, GLASGOW.

GEORGE LEDWALL TAYLOR, ARCHITECT.



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STUDENTS' DRAWINGS. XXXIII.—DESIGN FOR AN ENTRANCE TO A CEMETERY. (R.I.B.A. FINAL TESTIMONY DESIGN.)

BY A. B. B. JOPLING.



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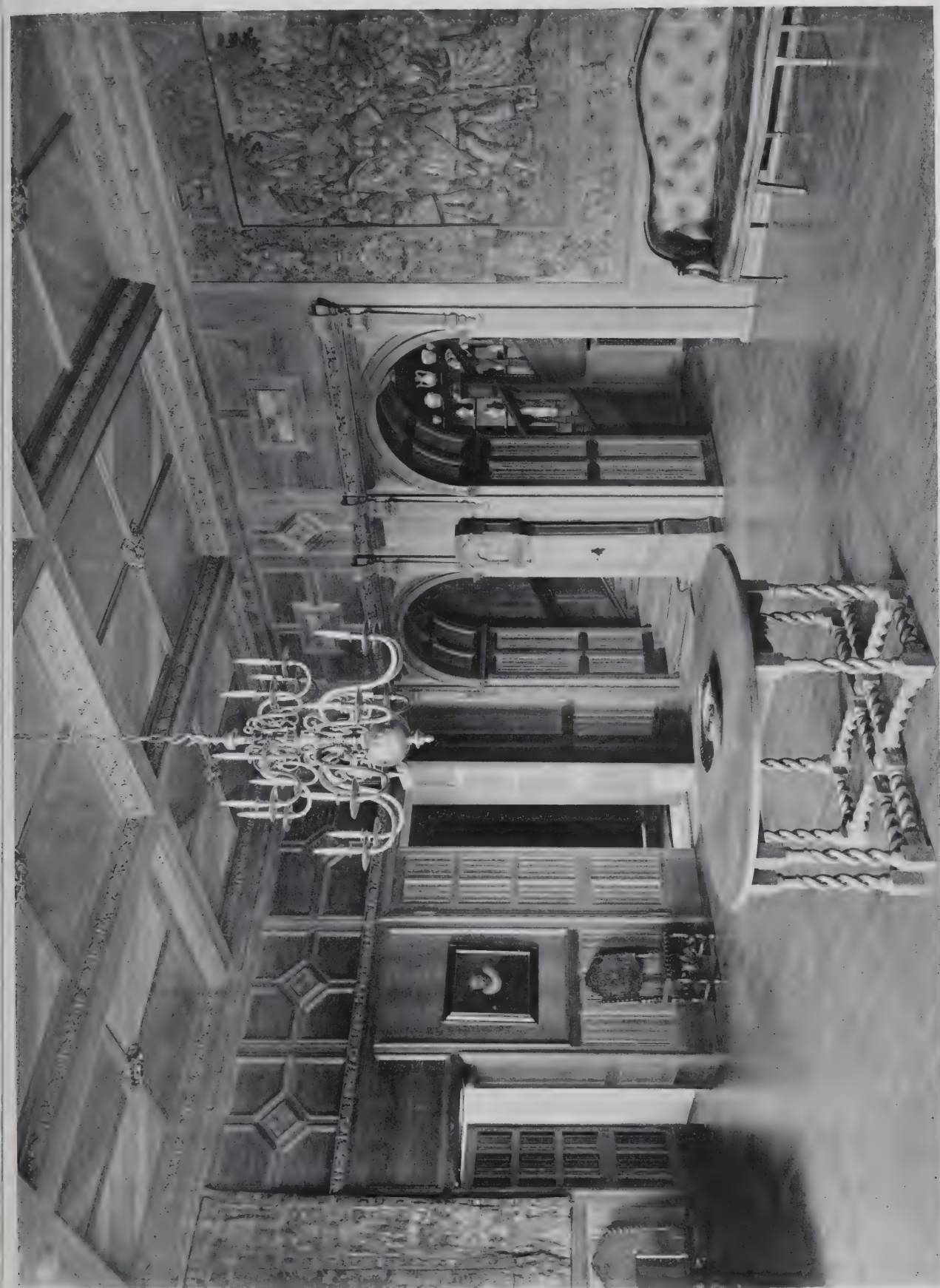
MODERN DOMESTIC ARCHITECTURE. XL.—"WINTERBOURNE," EDGBASTON, BIRMINGHAM: DETAIL OF ENTRANCE FRONT.

J. L. BALL, ARCHITECT.



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MODERN DOMESTIC ARCHITECTURE. XLJ.—WEMYSS HALL, CUPAR, FIFESHIRE: THE HALL.

SIR ROBERT LORIMER, A.R.S.A., F.R.I.B.A., ARCHITECT.



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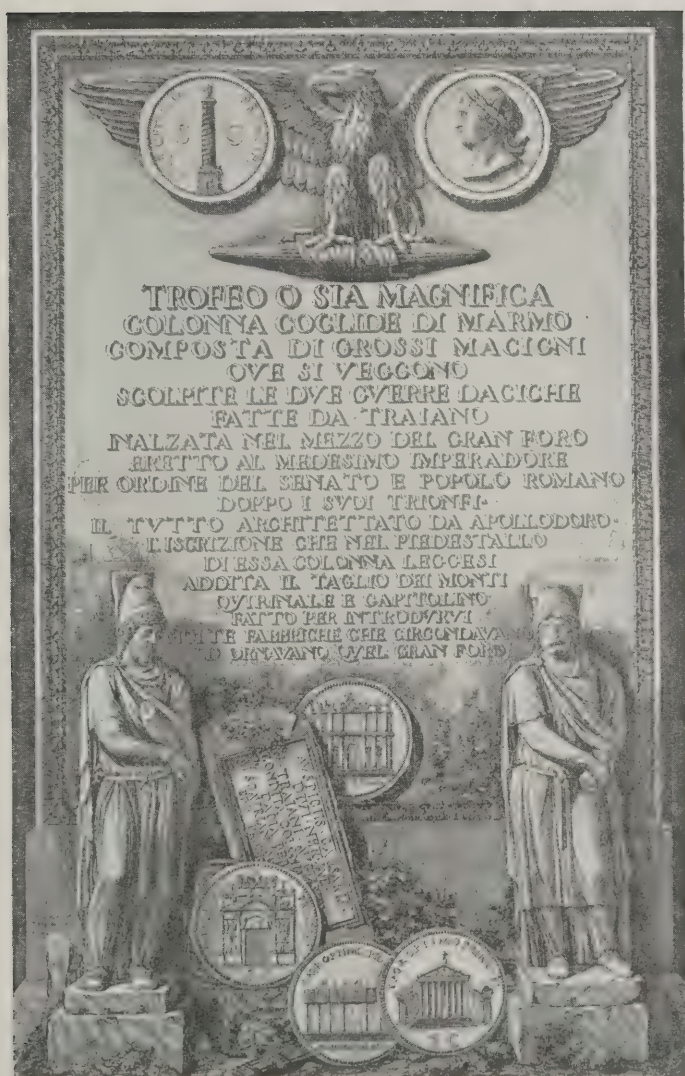


# THE ARCHITECTS' & BUILDERS' JOURNAL.

Wednesday, October 14, 1914.

Volume XL. No. 1032.

No. 106.



(From Piranesi.)



# THE ARCHITECTS' & BUILDERS' JOURNAL.

OCTOBER 14, 1914.

CAXTON HOUSE, WESTMINSTER.

VOLUME 40. No. 1032.

## EDITORIAL.

THAT unfortunate expression which was dropped by the Chancellor of the Exchequer in his reply to a deputation from the Association of Municipal Corporations on September 8—"I do not think this is the time to embark on great municipal enterprises which have no reference to distress"—was, as we pointed out at the time, likely to be interpreted in its narrowest sense as distinctly discouraging to municipal activity, and, by inevitable contagion, to private enterprise also. That, unhappily, is the sense in which the dictum has been widely interpreted, with depressing effect on the building industry at the very moment when it was most in need of encouragement and stimulation. It was as impossible to believe that this effect was intended as it was certain that it would generally prevail unless the Chancellor could be induced to reconcile his advice with previous exhortations to do everything possible to keep business normal.

In our issue of September 30 it was our rather painful duty to record a tendency on the part of Local Government Board inspectors to take their cue from the Chancellor's most pessimistic passage by impressing upon public bodies a policy of stagnation, and by withholding consent to proposed works. Last week, on the other hand, we were very glad to note that certain local authorities, and the Local Government Board itself, had risen superior to the narrow view, and were advancing to meet the enemy Distress instead of supinely awaiting the onslaught. On October 6 the Chancellor of the Exchequer and the President of the Local Government Board received a deputation from the National Workers' Committee, and in introducing it Mr. C. W. Bowerman, M.P., took exactly our previously expressed view. He had understood, he said, the desire of the Government was that municipal bodies should take a broad view of their duties, and arrange that as much work as possible should be done, but since Mr. Lloyd George's speech there had been many instances of municipal and other bodies restricting their efforts. The deputation, he said, could not help thinking that Mr. Lloyd George's words had been misunderstood in a very unfortunate sense.

The Chancellor's repudiation of the false economy so easily deduced from his unhappy phrase may be usefully quoted at length: "He did not want municipalities to launch out into all sorts of extravagances. As he understood it, the interpretation which had been put upon one sentence which he had used was that they were to make no preparations at all in a locality to relieve distress until it was actually upon them and they had a mob at the town-hall threatening to batter down the doors and clamouring for bread. That

certainly was not his idea, and if it was capable of interpretation he instantly withdrew the words. He never suggested—at least, he never meant to suggest—that municipalities were to wait when they saw distress was coming. . . . That was not his intention. They ought to exercise ordinary foresight, and make all necessary preparations to prevent distress arising in any locality. They ought to anticipate distress. We thought so, and said so, at the time of delivery, but events have shown only too conclusively the serious discrepancy between the Chancellor's intention and the phraseology in which he so quaintly disguised

In the circumstances, one is rather grateful for the Chancellor's lurid imagery of the mob battering at the doors of the town-hall and clamouring for bread, although the Berlin papers will probably garble it as a record of actual happenings, it will serve the legitimate purpose of awakening municipal bodies to a juster sense of their obligations to the community, and of the very possible consequences of neglecting to make all necessary preparations to prevent distress arising in any locality. The merely local effects on town-hall doors would be lamentable enough; but the important point for local authorities to take into most serious consideration is that the responsibilities which lie at their own doors might easily develop a sinister national import, since the multiplication of breadless and door-battered mobs would amount to a national calamity. The Chancellor's emendation of his unfortunate and unintentional counsel of timorous parsimony and inactivity should put local authorities in the right to employ effectual preventive measures—that is, to spend freely but wisely on necessary work, and regard the war as an incentive to press forward rather than as an excuse for postponing any schemes which are not demonstrably and grandiosely extravagant.

Moreover, the Chancellor is himself setting a good example. He told the Workers' Committee that at the conference with Lord Emmott, the First Commissioner of Works, it had been thought desirable to take powers this year for the erection of all the Government buildings which appeared to be required during the next two years. They intended to put down a considerable sum in the Estimates, and could either begin these works or postpone them, as circumstances seemed to dictate. No doubt, he said, a great many post offices, and Government buildings of one kind and another, would have to be erected in the course of the next five years. These, in ordinary circumstances, would have been spread over the Estimates of the next five or six years, but he proposed to crowd them into the Estimates of the coming year, in order that, in case of necessity, the Government may have power to build.



that the Local Government Board has either greatly misunderstood, or has suddenly reversed its former hardness of heart, is evident in its recently issued statement on unemployment, in which we are told that the Government urged upon local authorities the importance of mitigating the results of any dislocation of industry consequent upon the war, by expediting a scheme of work within their powers. It is also recommended that local authorities should at once start a scheme of work should it appear that exceptional distress from want of employment is likely to arise in an authority's area. Between August 4 and September 21 more than six hundred applications were made by local authorities for sanction to loans, which in the aggregate amount to about two millions and a half; and between the dates mentioned the Local Government Board actually sanctioned loans amounting to three millions and a half, as compared with the £1,928,000 sanctioned during the same period of the previous year. These facts were no doubt well known to the Chancellor when he let slip that unfortunate statement, which, read in the light of this happy gloss, could have been much less liable to misinterpretation.

It is further reassuring to know that, as a letter in our correspondence columns this week makes clear, H.M. Office of Works is, like the Chancellor, alive to the importance of pressing forward as quickly as possible work for which provision has been already made in the Estimates, and that, further, this department is urging the Treasury to modify the terms of contracts entered into before the declaration of war—a request which should meet with immediate and willing compliance on the ground of public expediency as well as of the justice to those contractors who might find themselves involved in serious loss if they were harshly compelled to carry out, after a sudden accession of war, contracts for which they tendered in time of peace.

It is not that such harshness would be without precedent. What is that to us? "See thou to that," was, in effect, the attitude of the Government towards a firm of contractors who, two or three years ago, sought to obtain in return of some four thousand pounds which they had to pay under the Insurance Act, which came into force during the progress of a contract in which a large sum was not taken into account. The contractors went to law about it, and lost their case. May a more equitable spirit exist, and there is but no doubt that the Office of Works will carry their case to the Treasury, to the great relief of the many builders who would otherwise have suffered a severe injustice, which, as the times go, might have acted on some of them as an absolute breaking stress.

Another matter in which the Office of Works are showing a quality of mercy hitherto unaccustomed to is that of advance payments to builders. Government departments have the reputation of being almost "gouty-handed" in this respect as the average private owner, who was wont to cite Government business as a precedent for his own, but who will now without hesitation make haste to follow so excellent a reformer of character. Then there is the smaller but by no means inconsiderable matter of retention money, portions of which may be released upon cause shown, the case being dealt with on its merits.

Concerning contracts, attention may be drawn to the agency clauses adopted by the Herts County Council and printed on p. 247 of this issue. In these it is provided that prices shall be varied in accordance with proofs or vouchers to be supplied to the architects by the contractors, who are also to submit as required certified statements of quantities and costs of materials

used, with invoices and accounts; and the accuracy of these details shall be, if the architects deem such a course necessary, attested by statutory declaration. If all these formalities became necessary with every contract, the relations between architect, building owner, and contractor would not necessarily become more pleasant or less complicated, and it is to be presumed that such provision would not be enforced in full rigour except in certain contingencies. These war risk clauses, and those drawn up (a) by Messrs. C. Harrison Townsend and C. H. B. Quennell, and (b) by the Dublin master builders and architects' organisations, show an excellent lead in a matter in which the R.I.B.A. should and might have been first in the field with a form that would have been generally acceptable. As matters stand, special war risks forms threaten to come thick as autumnal leaves in Vallombrosa: for it is understood that the R.I.B.A. and the master builders' organisations are still meditating on the subject, and that the London County Council contemplates a further solution of the problem. What a pity that this comparatively simple matter was not settled promptly, and once for all, by a joint-committee representative of all the issues involved!

The Glasgow Institute of Architects have taken a step which will probably be followed, in leisurely fashion, by the London architectural organisations. They have announced the suspension, in consequence of the war, of the Alexander Thomson travelling studentship. There are excellent and very obvious reasons for adopting this course. Travelling in certain directions on the Continent is not very easy just now, as the Germans seem to have realised; and it is an even more important consideration that all the best students are already travelling, in khaki clad, and it would be equally unfair to penalise their patriotism by debarring them from competition, and to risk putting a premium on unpatriotism by awarding coveted prizes among the sorry residue of those who have been unable or unwilling to volunteer. Prizes gained in such limited competitions would lose their lustre. Difficulties may arise from the conditions laid down by the pious founders; but these can doubtless be overcome without resorting to the thrice-odious "scrap-of-paper" immorality. Where there is an age-limit, for example, this, in the exceptional circumstances, may be very reasonably and very justly extended in favour of the gallant young men who may happen to exceed it while serving their country. Disqualification upon this ground would add an unnecessary and a very heavy item to an already sufficient burden of self-sacrifice, and we cannot for a moment suppose that it will be inflicted upon them. But we shall be glad to hear from several quarters—particularly, of course, from the R.I.B.A.—that this confidence is to be fully justified by the event.

Chief among the buildings that one hoped might survive the bombardment of Antwerp is, of course, the cathedral, which early in the siege was reported to have been hit. St. Jacques, begun in 1491, but not completed until 1656, and regarded as the most sumptuous of the churches in Antwerp, contains the Rubens Chapel, with its altar-piece, in which the artist has painted himself as St. George, and has introduced into the picture his two wives, his daughter, his father as St. Jerome, his grandfather as Time, and his youngest son as an angel. Rubens himself was buried in this church on June 1, 1640. There are also a "Last Judgment" by B. Van Orley, and a "Calling of St. Peter" by A. Van Noort. Rubens and Van Dyck are both represented in the church of St. Paul (1533-1621), the former by a "Scourging of Christ" and an "Adoration of the Magi," and the latter by a "Bearing of the Cross." A fine Rubens collection, mainly of



engravings and photographs showing nearly all his works, is housed in the Musée des Beaux-Arts, a square building of Greek character. Another building of which the destruction would cause infinite regret is the Plantin-Moretus Museum, which is the printing-office of Christopher Plantin (1514-1589), furnished and fitted pretty much as he left it when he died. At the time of writing there is only too much reason to believe that, what with Krupp guns and Zeppelin bombs, Antwerp is but little better than a vast ash-heap, a smouldering testimony to combined "Kultur" and "frightfulness." Of the many statues in Antwerp, probably very few will survive. Among them is one to Rubens, who had earned it whether as painter or diplomatist. Of the house that he built for himself a fragment was preserved with jealous care; and it is almost beyond hope that this, or the old guild houses in the same quarter can have escaped the general ruin of a most interesting city.

### HERE AND THERE.

WE now know the extent of the damage which was done to Reims Cathedral by the German shot and shell, and the blaze of that big scaffold which shrouded the north tower. The fabric still stands, thanks to its massive construction, but its stability would appear to be more apparent than real, for the stonework has been badly calcined, and the surface flakes away with the merest touch. And when we see those headless saints around the doorways, the bare walls which were once spanned by a fine old roof, the shattered windows that formerly were filled with the glory of Gothic glass, and the stumps of pinnacles and flying buttresses, we can fully realise that Reims is past repair. Complete restoration alone could give us back the semblance of what was once a grand cathedral of the thirteenth century, and, after all, it would be nothing more than a semblance, for, however we look at it, restoration is but the making of the best out of a bad job. Thomas Hardy takes the right view when he says that the spirit of Gothic architecture has been dead for three centuries, and that most of what is gone from Reims is gone for ever. In this matter we should reserve our eulogy for the real thing, the actual work that has come down to us intact, or as untouched as may be, from the cunning hand of the mediæval craftsman, be he mason, wood-carver, or worker in glass or metal. And this we shall find almost entirely in the interior. Outside the elements have been at work, reducing form to formlessness, and so the restorer has, inevitably, been busy upon the scene. Thus it happens that those storeyed saints and kings of Reims had been all cut afresh, the tracery and the mouldings were those of our own time, though as like the original as careful architects could make them. It is well to bear this in mind when contemplating the havoc wrought, otherwise with equal justice we should have to raise the cry of outrage at the dastardly soldiers who had done to death our own Middlesex Guildhall, and left never a head on all that array of the hierarchy in cut Portland.

Our heroes in the trenches have discovered the light side of war, and so have set a good example to us all. Hence I may recount with a certain relish one or two recent experiences of architects, respectable members of the Institute, such as might go to church with a silver-knobbed umbrella and return home "to a terrific smell of cooking at one o'clock," being brought within the arm of the law as "suspected" persons. There is a place known as the Victoria Embankment, and here, one Saturday afternoon recently, the partner in a well-known firm of London architects was engrossed over the site which is to be occupied by the new Board of Trade offices. The conditions of competition ask

for a perspective, and as a quick means of getting record of the surroundings this architect commenced to take some photographs. Now the War Office is next door to the site, and it so happened that the architect was soon pounced upon by two spotters, constables, who subsequently called up the veritable article in blue. The architect was voluble in remonstrances. It was a preposterous suggestion, he was a spy of any sort. The constables, laymen, professional, may perhaps have been doubtful about the slouch hat and baggy tie and the rather untidy growth of hair. Certainly they were not satisfied with the explanations, and so, in company with a small crowd that had gathered, the protesting architect was taken to Bow Street. Here he at once set about putting matters right. It was only necessary, he said, to telephone to his partner, a well-known F.R.I.B.A., then at his private residence in one of the suburbs, in order to establish that he was "all British." A policeman was deputed accordingly to do this, but, when he spoke indistinctly or whether the telephone was at fault, it is impossible to say, but the F.R.I.B.A. at the other end of the wire failed to make head or tail of what was being said. All he could hear was something about Bow Street, and, being a busy man, in his leisure time, he hastily said he knew nothing whatever about the matter, and they had better get off. The policeman returned to the charge office, and the smile died off the architect's face when it was reported that the person named had been commiserated with, and had said he knew nothing whatever about him! However, in the end, the architect's partner was sent for, and was able to establish her husband's identity. But competitors should take warning not to play just now with cameras or sketch-books on the Thames Embankment!

Another incident, which occurred only during the past week, concerned a certain gifted member of the Institute who carries out a great deal of work in the West Country. He was in a motor-car, with a friend, travelling in the region of Plymouth, and he, too, had a camera. Local colour for competition perspective was not what he sought. His is a temperament that revels in discoveries, and he had lighted upon a delightful house of the Regency period absolutely unknown to the profession. It must be admitted, gesticulated, but that is merely the expression of enthusiasm. The lodge-keeper, however, a Cornishwoman, was not accustomed to this sort of thing, and promptly reported to the police on the telephone, when the car had gone. Result, archæologist held up further along the road, and examined, though he had been busy photographing the fortifications and the lay of the land. Quite a pile of papers and other things being demanded; but eventually the car went on its way.

It was in the Plymouth district also, as this architect recounted to me, that he met the builder who said that war had been brought to his own front door. The builder lives in a house which happens to have been built quite unthoughtful of the possibility of a German invasion and all its concomitants. So perhaps the builder had no cause to grumble at the notification which the authorities served upon him, to the effect that, his house being in the line of fire, they might be obliged to demolish it at any moment. There is a fort not far off whose guns are trained on the builder's front door, a state of affairs which cannot be regarded as bringing solace to the mind. But that, after all, is merely the exigency of the situation. Nor does the builder object to the loopholing of his garden wall at regular intervals all round. What annoys him is that a Government contractor should have been employed to do this little work of demolition. That, really, is the unkindest cut of all.

UBIQU



## BUILDING CONTRACTS AND THE WAR.

Recent issues of this Journal special attention has been given to the important matter of building contracts as affected by the War; the object being put before our readers the views of various architects who have given careful consideration to the subject, so that thereby some means might be indicated as to the best way to overcome the difficulties that have been encountered. These difficulties are many, the chief of them being from the diffidence of builders to submit tenders for projected work, on account of uncertainty as to the cost of materials, or, in case of work entered upon after the outbreak of hostilities, the awkward position of builders being asked to carry on a contract on a pre-war basis while faced with an immediate increase in prices and the possibility of a further increase in the future. There is, moreover, the building owner's point of view to take into consideration. Unquestionably for private enterprises have been withheld because the client felt a general uncertainty as to what was going to be the cost of the work he had in view, and nobody could give him any definite assurance on that point a difficult situation has been created, but it is one which can be overcome, as it has been our special endeavour to show.

In our issue for September 16 we published some clauses, added to the R.I.B.A. Form of Contract, which had been drawn up in respect of some new premises for Messrs. Agnew which are now being built to the design of Messrs. C. Harrison Townsend and C. H. B. Mell, F.F.R.I.B.A. These are of great interest as showing how the difficulties created by the War had been overcome in respect to a private enterprise. We are now able to give some clauses bearing on a work of public character, and these, we think, will be studied by architects and builders with equal interest. The work in question is an addition to Hill End Asylum which is to be built for the Asylums Committee of the Hertfordshire County Council, to the design of Messrs. George T. Hine and H. Carter Pegg, R.I.B.A., of Westminster, to whose courtesy we are indebted for the present information. Messrs. Hine and Pegg first drew up a memorandum setting out the points at issue, and this was then given the following legal form:

Whereas at the date of the main contract the contractors were in a position to obtain the materials and things required for the purposes thereof which are specified in the Schedule hereunder written at the prices respectively set against the same in the Schedule, and the sum of £16,577 mentioned in the main contract was arrived at on a pre-war basis, and whereas after the execution of the main contract by the contractors, but before a counterpart thereof executed on behalf of the employers had been delivered to the contractors, war broke out between Great Britain and other countries in consequence whereof the contractors allege that they are no longer in a position to obtain the materials and things aforesaid at the prices aforesaid, and contend that the main contract is not binding upon them, and whereas a difference having arisen between the parties hereto with regard to such contention, it has been agreed that these presents shall be executed. Now it is hereby agreed by and between the employers and the contractors as follows:

1. Before procuring or ordering any material or thing specified in the Schedule the contractors shall deliver to the architects written particulars showing the lowest net price at which they are able to obtain the same, and shall produce for their inspection all price lists, estimates, invoices, accounts, vouchers, letters and other information required by the architects in regard thereto. The architects, upon being

satisfied that such price is the most favourable obtainable by the contractors, shall signify their approval thereof in writing.

2. The contractors shall, when required by the architects during the carrying out of the works, deliver to them detailed statements showing the quantities used of all material specified in the Schedule and the net cost thereof to the contractors, and produce for their inspection all such invoices, accounts, vouchers, letters and other information as aforesaid, and shall, if at any time so required by the architects, verify such information by a statutory declaration.

3. The said sum of £16,577 shall be increased or diminished to the extent to which the cost at prices approved as aforesaid of any materials and things specified in the Schedule and used in carrying out the works shall be greater or less than the sum which the same would have cost at the prices respectively set against the same in the Schedule, and clauses 35 to 39 inclusive of the main contract shall be read and construed so as to give effect to the provisions of this indenture.

In this instance, it will be noted, there was a difficulty of an exceptional nature, inasmuch as the contractors had signed the contract before the outbreak of War, but the official signature and seal of the County Council had not then been affixed. The terms of the indenture overcome this difficulty admirably. Prices are taken on a pre-war basis, the contractors have to produce evidence showing to what extent materials are costing them more, and the architects, being satisfied, have authority on behalf of the County Council to assent to the increased cost. In addition, it will be noted that provision is made for a *drop* as well as an increase in prices, so that this arrangement has a two-fold effect.

A month ago we gave the "slip" drawn up by counsel on behalf of the Dublin Building Trades Employers' Association for addition to all tenders. It ran practically as follows: "This tender is submitted on the express condition that if the prices or cost of any material or labour advance or be reduced by more than 5 per cent. over or under the rates of the date current the schedule of prices for such shall be altered accordingly." We now have an instance of a variant of this in the case of some workmen's dwellings to be erected at Inchicore. At the last meeting of the Municipal Council of Dublin the Housing Committee reported that they proposed to insert a clause to the effect that should the price of building materials increase by 5 per cent. the contractor was to bear the loss, but that should the increase exceed 5 per cent. then the Council would pay the difference, the architect being given power to approve or disapprove any increase over the prices in the schedule provided.

As to what the increase in the prices of building materials will eventually amount to, nobody can say at present. It seems likely, however, that timber will be the chief item. We note, therefore, with gratification that a round-table conference of representatives of the National Federation, the Institute of Builders, the London Master Builders' Association, and the R.I.B.A. was held at the Board of Trade last week, when an informal talk took place, and suggestions dealing with existing and future supplies were considered, a committee being appointed to collect practical data and make enquiries on the subject. It seems likely that supplies from Canada can be found to meet the shortage due to the cessation of Baltic exports, certain kinds of Canadian timber being substituted for the familiar varieties sent from Russia and Sweden, while, no doubt, mahogany will be extensively employed in place of the oak that has come to this country in such large quantities from Austria.



## THE PLATES.

*French Empire Furniture.*

THE chair from the Grand Trianon which we illustrate this week is the first of a series of illustrations of French Empire furniture which we propose to publish. Architects are often called upon to design furniture, both in connection with public buildings and for private houses, and we think that these examples of the Empire period in France will be found not only of much interest in themselves, but valuable also as affording suggestions for modern design. The development of the Empire style in France was due chiefly to Percier and Fontaine, who carried out important work for Napoleon I. Although it did not supersede entirely the traditional French work, such as that of the Louis XIV. and Louis XVI. styles, it gave a great impetus to decoration. Purely architectural forms were introduced in place of rococo scroll-work, and the Greek palmette and acanthus, the egg-and-tongue, the guilloche, and other decorative patterns were adapted to furniture and accessories, the enrichments being frequently executed in metal and applied to the woodwork. In the finest specimens this metalwork is very carefully chased, whereas in modern reproductions the ornament is not nearly so finely finished. In the case of the arm-chair illustrated this week the enrichments appear to be executed in gesso, gilt, on a white painted ground. The chair commends itself especially by its elegant form; it is, moreover, a sound piece of construction, the frame being well knit together, and the arms solidly attached to the back.

*Cottingham's Designs for Ironwork.*

To the series of designs for ironwork by Cottingham which we have been publishing for some time past is now added a plate showing some designs for lamp standards. These were intended to apply to gas lights, but it is obvious that they are equally applicable to electric lighting. The standard shown on the right-hand side is the best of the three. This might be taken as a model for one of those standards which it is now the custom to place on either side of the main entrance to a public building.

*Sutton Valence School, Maidstone.*

This school is a typical example of the work of Messrs. Adams and Holden. Very careful consideration has been given to the massing of the three blocks, and a central feature of interest has been introduced in the form of a shallow bay crowned by a lead-covered clock tower. The composition can be studied from the  $\frac{1}{4}$ th-scale drawing of the elevation which is given as a double-page plate in this issue.

*A Temporary War Hospital.*

At a time when considerable numbers of wounded soldiers are arriving in this country from the front the plate showing the temporary hospital which has been erected by the War Office at Wandsworth is of particular interest. Details of the construction need not be given here, as the building is fully described in the adjoining column, a plan of the operating theatre provided in connection with the several blocks being also given. Each of the blocks, it will be noted, provides accommodation for twenty-one beds.

*Ecole de Guerre, Paris.*

The façade illustrated forms part of the fine block of buildings at one end of the Champs de Mars known generally as the Ecole Militaire. This building was erected originally in the reign of Louis XV.—about 1751—for the military education of 500 *gentils-hommes*. In 1792 it was converted into a barracks, and the portion which we illustrate is allotted presumably to the cavalry. The composition is well arranged, and though the windows suffer from modern

alterations and additions the changes are not sufficient to detract from the general appearance of the façade. Over the tall arched doorway is a Gorgon head, and rams' heads are set above the windows on either side. While above the cornice the Roman fasces are repeated as a decorative *motif* in the panels of the pilasters, the whole being crowned by a typical sard roof with a detached sculptured pediment, a present time very much worn by weather. The blocks of the Ecole Militaire are by Gabriel, but the portion would seem to be by another hand, and ex-

*Doorway, Lower Kennington Lane, London.*

This is an example of a door of the transitional middle period between early and late Georgian work. The treatment of the cyma to the architrave and the egg-and-tongue ornament in the cornice is distinctly early Georgian in character, while the Greek frieze of the architrave and the design of the frieze are not typical of late eighteenth-century work. The distinct elements in the design have been skillfully blended to produce a harmonious and coherent result.

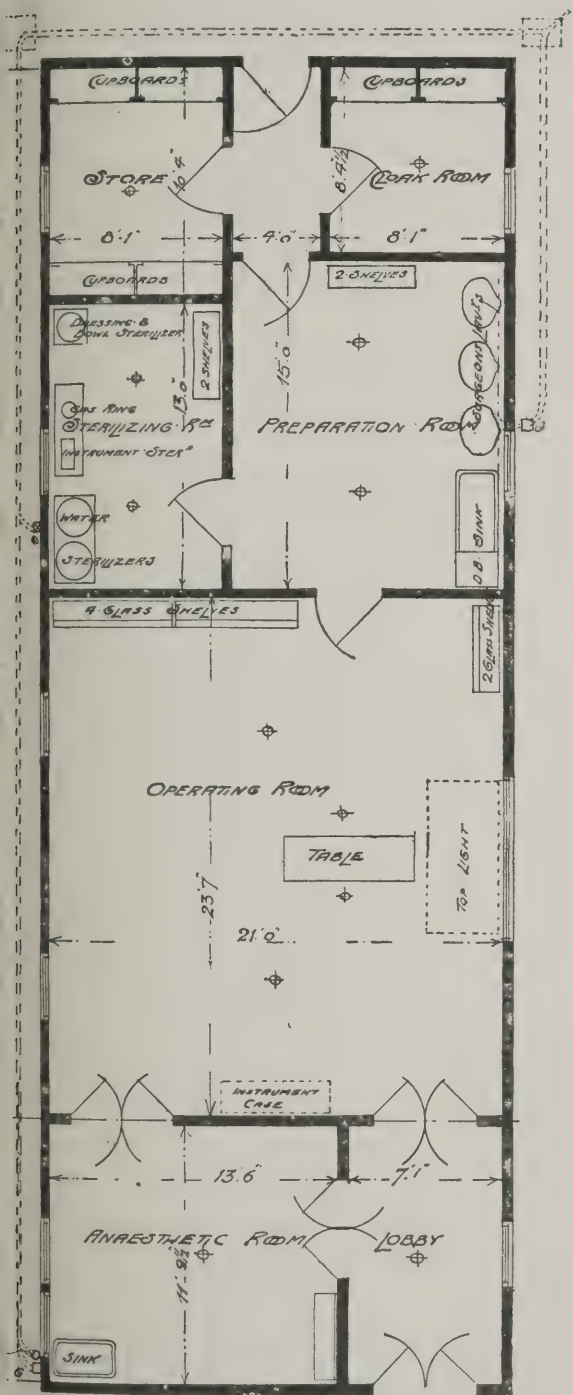
## A TEMPORARY WAR HOSPITAL

THAT war on a gigantic scale, in which millions of men are using the deadliest engines of destruction, has shown that human ingenuity can devise, has found, necessary concomitant the provision of a large number of hospitals for the reception of the sick and wounded. It seems to be much more obvious than the ways and means of meeting the extraordinary and unparalleled requirements of the situation. It has been argued with undeniable force that the economical course is to erect as many permanent hospitals as possible, and in particular to push on the many schemes for sanatoria that have been prepared under the National Insurance Act, which the sum of two millions sterling was allocated by the Treasury. But while that is clearly a very commendable thing to do, it does not meet all the conditions. Time and place are, as usual, factors of extreme importance. It is essential that the required accommodation shall be provided quickly and that the hospitals shall be situated with a view to convenient access in the emergency rather than to very much regard for the permanent value of the position. Emergencies must be met as such, and it is gratifying to know that the military authorities are now erecting a number of temporary hospitals. One of the most interesting is that illustrated in the present issue. This hospital, which has just been completed, is in the grounds of the Royal Victoria Patriotic Schools at Wandsworth, the school buildings having also been converted to hospital purposes. The situation is probably one of the healthiest and most convenient in the immediate neighbourhood of the metropolis. It lies to the south-west of Clapham Junction, and is practically surrounded by the open land of Wandsworth Common.

The hospital itself is very simple, both in design and construction. It has been built, from special War Office plans, on the unit principle, in order that it may be transported and erected elsewhere should the necessity arise. It consists at present of an operating theatre and ten wards, each accommodating twenty-one patients, including one special case. The wards are ranged on each side of a long covered passageway, which communicates directly with the permanent building. All the temporary buildings are erected on brick and concrete foundations. They consist of an ordinary timber framework, covered on the outside with corrugated steel and lined internally with Wilsasbestile asbestos sheeting, supplied by Messrs. Wilson and Co. The floors of the wards are grooved and tongued, and finished with Ronuk.



ting theatre block is constructed in almost  
ly the same way as the wards, the only difference  
; that the theatre itself, a large and well-lighted  
partment, is lined both on walls and ceiling with  
elled sheets and laid with jointless flooring, by  
rs. Carter and Co. The buildings are fitted  
ghout with every modern accessory and appliance  
ed in hospital equipment, the work having been  
efficiently and rapidly carried out by Messrs.  
s and Hill, of Crown Works, Lambeth.  
luable details of the construction and other  
res of the work are given on the accompanying  
ings (see Plate, and plan of operating theatre on  
page), which, reproduced from the official plans,  
orthy of close study.



OPEN SIDED CORRIDOR

THIRD GENERAL HOSPITAL, LONDON: PLAN OF  
OPERATING THEATRE.

## CORRESPONDENCE.

*The Editors disclaim all responsibility for the statements made or opinions expressed by correspondents, who are asked to be brief, and to write on one side only of the paper. Every communication must bear the name and address of the sender.*

*The Work of the Architectural Association.*

*To the Editors of THE ARCHITECTS' AND BUILDERS' JOURNAL.*

SIRS,—There have been many inquiries as to whether the Architectural Association is carrying on its educational work during this crisis in national affairs, and I should like therefore to make it known as far as possible that everything is being carried on as in normal times. The day and evening classes are necessarily depleted by the patriotic response of a large number of students to Lord Kitchener's appeal, but there are still many students who, for various reasons, are unable to join the Forces, and these are very properly continuing their studies. I would urge the importance of all students continuing their educational work if they are unable to enlist.

Apart from the work in the school, considerable recruiting is going forward at 18, Tufton Street, from the ranks of architects and men of kindred professions, and also (at the request of the authorities) amongst skilled mechanics connected with the building trade. I feel sure that members and others will be glad to know that the A.A. is carrying on its work and doing its best in other ways to be of some practical service to the country.

H. AUSTEN HALL, F.R.I.B.A.,  
Acting President.

*The Government and Building Contracts.*

*To the Editors of THE ARCHITECTS' AND BUILDERS' JOURNAL.*

SIRS,—The attitude of the Government in the present crisis regarding building contracts cannot be too widely known, and for that purpose I give below the Government's reply to recommendations placed before them by a committee of building trade interests on August 8 :—

Sir,—I am directed by the Board of Trade to state that the views of the deputation which attended at this Department on August 8 in regard to building operations undertaken on behalf of Government Departments were communicated to the Office of Works, and that the Board understand from that Department that it has been decided to press forward, as quickly as possible, all work for which provision has been made in the Estimates.

The claims of contractors who are likely to suffer loss owing to the rise in the cost of materials, etc., are receiving consideration, and the Lords Commissioners of the Treasury have already been approached with a request for authority to be granted to the Office of Works to modify the terms of contracts entered into before the declaration of war, where the circumstances are considered to warrant some modification.

The Board also understand that the question of accelerating advance payments to contractors, and also of releasing portions of the retention money, where this may be practicable, are also receiving attention, and each case will be dealt with on its merits.

(Signed) GEO. J. STANLEY.

By this it will be seen that whilst the Government in no way absolve any contractor from legal liability with contracts entered into prior to the declaration of war, yet it is their declared intention to modify the terms where circumstances are such that the carrying out of same to the strict letter would mean undue hardship to the contractor.

The acceleration of general payments to Govern-



ment contractors will be appreciated, and will do a great deal to help the finances of many, while the releasing of retention money hitherto held up, in numerous cases for long and unjustifiable periods, will be welcomed by all.

This Government action should have the effect of inducing those who placed building contracts prior to the war to adopt the same liberal and loyal spirit, by agreeing to modifications where the abnormal cost of material involves a heavy loss on the contract.

Should any contractor, in face of this official communication, have any difficulty in any of the directions indicated, I shall be pleased to give any assistance in my power.

There are further suggestions still before the Government regarding advances from banks to builders and contractors, and it is hoped that some reply on this score may be given shortly.

London, E.C.

P. G. DONALD.

#### *Investment in Housing.*

To the Editors of THE ARCHITECTS' AND BUILDERS' JOURNAL.

SIRS,—Many people are at the present time doubtful as to how they shall invest their money, in view of prevailing uncertainties. The Garden Cities and Town Planning Association wishes to call attention to one method of private investment which may be of great national service.

There are at present in existence a number of schemes, such as the First Garden City at Letchworth and the various garden suburbs which have been successfully started in various parts of the country, where building and development operations are now in danger of being curtailed through lack of capital and where much work could be done if money were at once forthcoming.

As these schemes are all to meet the lack of housing, those prepared to help them would be securing three important points:—

1. They would lessen both unemployment and the call upon relief funds;
2. They would help to ease the pressing housing problem;
3. They would receive a satisfactory financial return upon their money.

It should be pointed out that under recent legislation the advantage secured is far greater than the amount invested. The Local Government Board is prepared to advance to public utility societies a large proportion of the capital needed for housing purposes. If, as may well be the case, 80 per cent. of the value of the property is advanced by the Local Government Board, every £1,000 of capital subscribed will mean £80,000 worth of building operations.

Information can be obtained from the offices of the Garden Cities and Town Planning Association, 3, Gray's Inn Place, London, W.C.

(Signed) SALISBURY, President.  
CECIL HARMSWORTH, Chairman.  
EWART G. CULPIN, Secretary.

A.A. War Service Bureau: Comforts for Architects on Service.

To the Editors of THE ARCHITECTS' AND BUILDERS' JOURNAL.

SIRS,—I feel sure that architects will be interested to know that some 150 members of the Architectural Association, including the president of the A.A., are now serving in the Army and the Territorials. Several instances have come to my notice of unnecessary hardships owing to the lack of simple comforts. It has been suggested by some of the men themselves that the association might act as a central body to look after as far as possible the interests of the A.A. men

and their friends serving with the colours either at home or abroad.

For this purpose a small sub-committee has been formed which is in touch with the various units to get out their immediate wants. I attach below a list of the articles that are now most wanted, and I earnestly ask for assistance. All offers of help and gifts of money and kind should be addressed to me at the offices of the Association, 18, Tufton Street, Westminster, S.W., and I shall be very glad to give further information to inquiries sent to me at that address.

DOROTHEA M. WELLS.

List of articles required: Blankets, belts (knitted or woven), sleeping helmets, flannel shirts, socks, tooth soap, tobacco, cigarettes, papers (daily and weekly magazines).

#### *The Paint and Varnish Society*

To the Editors of THE ARCHITECTS' AND BUILDERS' JOURNAL.

SIRS,—In the existing crisis the Paint and Varnish Society is an invaluable organisation for all concerned in the manufacture and use of paint, varnish, and allied products. This Society is the ready medium for conjoint action by the industry as a whole, or by any section of it. It can be of material assistance to manufacturers, merchants, craftsmen, and others in dealing with the sudden permanent change in economic conditions.

The services of the Paint and Varnish Society, a recognised authority in matters concerning the interests of the trade—are at the disposal of H.M. Government, and the Council earnestly requests all connected with the trade to add their names to the list of members in order that such action as the Society may be called upon to take will be representative to the trade to the fullest degree.

A series of meetings will be held at short intervals during the early months of the session, and the secretary will be glad to receive communications from gentlemen in the trade—whether members of the society or not—on any subject affecting their industry.

R. CLAUDE BUSSELL, Hon. Secretary.  
13, Gower Street, W.C.

#### THE DESTRUCTION OF LOUVAIN

A REMARKABLE record of the principal architectural features of Louvain is presented in the October issue of THE ARCHITECTS' AND BUILDERS' JOURNAL. From the comprehensive series of photographs given one gains an admirable idea of the work that has been destroyed. Of the most famous Church of St. Pierre, for example, there are photographs showing the building in its present state as it was before the Germans descended on this old Belgian town, and these enable one to realise the splendour of a splendid piece of Gothic building the Church of St. Pierre was. Similarly one notes with sad interest a view of the great hall, the ancient cloth hall of Louvain below the University library, now reduced to ruins. Other views show the Hôtel de Ville, the Church of St. Gertrude, with its remarkable stalls—fortunately among the few things that have escaped injury—others show the Church of St. Michel, the Church of the Béguinage, the Church of Notre Dame, and the remarkable house-front of the early sixteenth century with blind tracery in cut brickwork. Numerous views of Louvain have appeared in the newspapers and elsewhere, but nothing approaches the series of plates in the October REVIEW for completeness and excellence. Everyone interested in this unique record of Louvain should make a point of securing a copy of the issue which is sure to go out of print very soon. The price is 1s.



## BUILDERS' MATERIALS: SOME OPPORTUNITIES IN FOREIGN MARKETS.

LAST week, in giving in some detail an account of the now lapsed trade with Germany and Austria, we mentioned that the Commercial Intelligence Department of the Board of Trade had issued a series of bulletins showing the opportunities now afforded to our traders of establishing themselves in Colonial and neutral markets where German and Austrian or Austro-Hungarian manufacturers and merchants have hitherto secured a large amount of business. As Mr. H. Glyn Smith, of the Commercial Intelligence Department, observes in his circular letter to traders, the present safety of the trade routes, coupled with the attention afforded by the State scheme of war-risk insurance, and the financial measures taken by H.M. Government to facilitate the continuance of business transactions, should stimulate enterprise in directions which German and Austro-Hungarian trade with these countries must necessarily be at a standstill. These bulletins that are of special interest to our manufacturers and merchants are those that respectively with "Iron or Steel Bars, Rods, Pipes, Shapes, or Sections"; "Building and Furniture Fittings, Including Locksmiths' Wares"; and "Fireproof Bricks, Retorts, Crucibles, etc." From them it will be useful to extract a few leading data, stating the countries in which our enemies found their largest markets.

The United Kingdom was Germany's most important customer for girders and malleable iron etc., at nearly a million and a half sterling yearly; the other most important markets were the Netherlands, one million one hundred and sixty-seven thousand; Switzerland, about seven hundred and fifty thousand; Argentina, more than six hundred and seventeen thousand; and Japan, four hundred and fifty-seven thousand. There were also considerable exports sent to British India, Australia, and Canada, to Sweden, Denmark, Belgium, Italy, Roumania, Persia, and Russia in Europe, and to the Dutch East Indies, Brazil, and the United States.

A statement of the annual value of German, Austrian, and British exports of bar, angle, etc., iron in Colonial and neutral markets shows that the United Kingdom easily holds the Colonial and United States markets, and takes also a fair position in the Russian, Persian, and Argentine markets. There would appear to be openings at the expense of Germany in most of the European markets, especially the Netherlands and Switzerland; and the United Kingdom, as compared with Germany, holds an extremely strong position in the South African, Cingalese, Canadian, New Zealand, Australian, and Indian markets. A very strong position is held by the United Kingdom in Egypt and the United States, and is doing fairly well in the French, Russian, and Brazilian markets; in most of the European markets there would appear to be important openings for British manufacturers of bar and angle iron, particularly in Scandinavia, Denmark, the Netherlands, Belgium, Italy, and Japan. In the Dutch East Indies and Japan, our country has a long lead over the United Kingdom, in China the reverse is the case. Germany's exports of such iron to Argentina (£617,200) are two-and-a-half times as great as ours, but in the remaining South American markets we have a lead, though not a very large one. Austria's exports of bar and angle iron are relatively insignificant, amounting to no more than one hundred and sixty-seven thousand sterling to all countries. It is estimated that the maximum amount of German and Austrian trade in iron and steel bars, pipes, angles, or sections, which might under present circumstances be diverted to British manufacturers, would be a grand total of considerably more than eight millions sterling yearly.

In the bulletin dealing with these goods there are

included a few useful hints as to the requirements in various markets. Thus, in mentioning that in 1910 Australia imported from Germany about twenty-eight thousand pounds' worth of hoop-iron, and a very slightly less amount from the United Kingdom (Germany's total contribution of ironwork amounting, however, to only some two hundred thousand sterling, whereas ours considerably exceeded a million), it is stated that the Continental hoop-iron was imported for cooperage purposes at about £8 10s. c.i.f., and resold at approximately £10 a ton on the Australian market. About ten per cent. of the Continental hoop-iron was galvanised ware, used for fencing and building.

With respect to British India it is stated that, for building, iron products are preferred to steel, and that Germany and Belgium practically divided between them the trade in steel bars, while Germany had also the lion's share in heavy materials such as girders, pillars for bridge-building, etc. From the Straits Settlements it is reported that Continental hoop-iron there predominates, owing to its lower price as compared with the British product. Egypt, on the other hand, requires a better quality, and therefore imports more largely from Great Britain. Round steel bars are being imported in increasing quantities as reinforced-concrete buildings are gaining in favour. German girders were finding an increasing sale in Egypt because the manufacturers produced a special section of less weight than the Belgian girders.

Of building and furniture fittings, it is stated that the value of building and furniture fittings, including locksmiths' wares, exported from Germany and Austria-Hungary "in a recent year" was rather more than a million and a quarter sterling. Germany's chief market was Russia, which took about a hundred and twenty-five thousand pounds' worth. Italy and Argentina each took more than a hundred thousand pounds' worth, the Netherlands coming next with eighty-six thousand, then the United Kingdom with seventy-six thousand; while British India, Switzerland, Egypt, Turkey, and Belgium were of nearly equal value *inter se* as customers to the extent of about sixty thousand pounds each. Austria-Hungary's exports of these goods are insignificant.

Germany's export trade in fireproof bricks, retorts, crucibles, etc., amounted to about six hundred and fifty thousand pounds a year, and Russia and France were her best customers, with a hundred and sixty thousand, a hundred and forty thousand, and eighty-five thousand pounds respectively, the United Kingdom taking about fourteen thousand pounds' worth. From Austria we took about seventeen thousand pounds' worth out of a total of a hundred and forty thousand pounds. Altogether, the trade in these goods which might be diverted from the two enemy countries may be safely assumed at more than seven hundred thousand pounds; and adding this to the other totals given above, we get a grand total, for these three branches of builders' supplies, etc., of something approaching ten millions sterling per annum—a sum that is surely worth an energetic effort to secure for this country. In order to get it and keep it, our traders must be more solicitous than they have been hitherto to study the requirements of each particular market and endeavour to meet them—that is, they must accommodate the goods to the market, instead of following the bad old British practice of trying to mould the market to the goods. It is chiefly in this respect that the Germans have been allowed to creep up to us, and in too many instances to get ahead of us.

With the bulletins on cast-iron goods (stoves, baths, etc.), cement, stoneware and earthenware, and painters' colours and materials (including varnish), we hope to deal next week.



## ENQUIRIES ANSWERED.

*Breach of Covenant to Repair.*

H. (London, N.) writes: "A schedule of dilapidations has been served upon the assignee of the lease of a building, and the three months' notice to repair has elapsed. For some months past the rents have been collected on the premises for rent in arrear; the debt having been covered, can I proceed to carry out the necessary work and continue to collect rents against the cost, or must I bring an action for this charge? Or must I bring an action for breach of contract?"

—The querist's position in the matter is not defined, but in any case the only safe advice to offer is that he has apparently no right to reimburse himself out of the rents, and that any claim he may have for the expenses of repairs should be enforced by means of legal process. It is always dangerous to take the law into one's own hands, and such action is always strongly resented by the courts.

*Worms in Woodwork.*

G. E. E. (London) writes: "Kindly tell me how to kill, and also to prevent, worms in floor-boards and other timber and furniture. The floors and joinery in different parts of a house are very badly holed. I do not know how to prevent the nuisance from spreading. So far as I can see, the furniture has not been attacked, although underneath a piano the floor is in a bad condition."

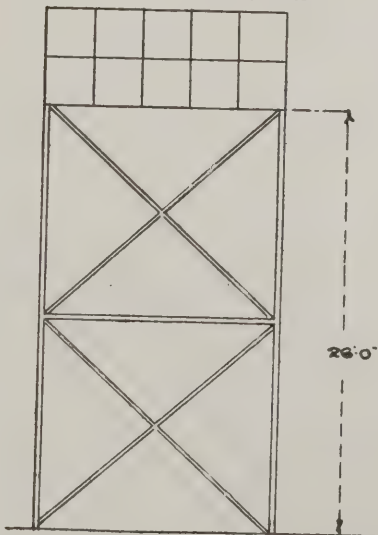
—The worms complained of are probably the larvæ of one of the genus *Anobium*. The best treatment that can be suggested in the case of fixed woodwork is to inject into the holes spirits of wine in which corrosive sublimate has been dissolved. The solution (very poisonous) should be in the proportion of 60 grains of bichloride of mercury to a pint of spirits of wine, and applied in the spring or early summer months, when the perfect insects are emerging from pupæ.

G.

*Stresses on Steel-framed Tank Tower.*

H. G. B. (Norwich) writes: "In your issue for March 11th you published an extended reply to a query of mine concerning stresses in a steel tank gantry. In considering the design of this framing, in the case of the corner stanchions, by refer-

TANK 15'-0" x 15'-0" x 6'-0" DEEP.  
CAPACITY 8,250 GALLONS.  
WEIGHT OF TANK 8 TONS  
" " WATER 3.7 "  
" " SIDINGS 2 "



ring to a list of Messrs. Dorman Long and Co., I find in the tables of safe loads of steel joists as stanchions that a 5 by 4½ r.s.j. will carry safely 13 tons on 13 ft., but referring to the stress of 14.1 in the lower part, will a 6 by 5 joist be good enough for this, or should I add to the 14.1 tons the 13 tons in the top part, making a total of 27.1 tons on 13 ft., requiring an 8 by 6 r.s.j.?"

—The 14.1 tons compression in the lower part of corner standard includes the stress of 13 tons in the part above it. The section to use would be a 6 in. by 5 in. by 25 lb. rolled steel joist.

HENRY ADAMS.

*Composition Floors.*

Referring to the enquiry under the above heading on page 224 of our issue for September 30th, Messrs. Spicer Brothers, Ltd., London, E.C., write: "May we suggest that if the concrete floor were painted with Toch Brothers' cement floor paint (for whom we are agents) a good finish would be given at a cost far less than would be possible if a composition were used as suggested. Cement floor paint is specially made for treating concrete floors, to decorate, and to damp-proof. Floors treated in this manner are immune from the action of oils, greases, and dilute acids. We might mention that several sanatoria and hospitals in the United States have been treated in this manner. It is also being considered by architects and surveyors for use in sanatoria in this country."

*Carpenters' Company's Examinations.*

J. D. S. (Ashford) writes: "I see that before one can join the Clerks of Works' Association it is necessary to obtain the Carpenters' Company's certificate. What are the subjects, and where is the examination held?"

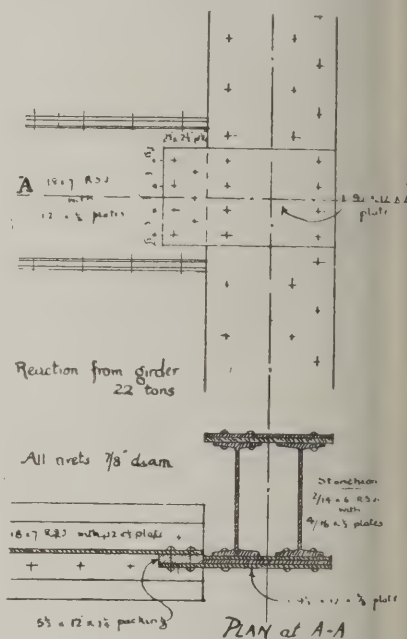
—The next examination by the Worshipful Company of Carpenters will be held at Carpenters' Hall, London Wall, London, E.C., on November 26 and 28, and will be based on the series of lectures that will be held on successive Thursday evenings, at 7.30 p.m., from October 8 to November 5 at Carpenters' Hall. Their general subject is sanitary building construction. Mr. H. D. Searles-Wood, F.R.I.B.A., opens the series with a lecture on the essential points to consider in selecting a site for a building, the construction of walls in damp and exposed situations, and foundations for buildings, and the other lecturers and subjects are as follows: Mr. James Bartlett, M.S.A., "Ferro-Concrete Construction"; Dr. A. Wynter Blyth, "Sanitary Appliances for Houses and Factories, House Drains, Plumber's Work"; Professor R. Elsey Smith, F.R.I.B.A., "Principles of Calculating Areas and Solids, How to Read Drawings, Acts of Parliament and By-Laws"; Mr. H. D. Searles-Wood, "How to Select and Test Materials Used in a Building; Decay in Timber, Its Cause and How to Prevent It." The lectures are illustrated with dissecting models, large diagrams, photographs, and specimens of materials. Entry forms for the examinations, tickets for the lectures, and all particulars, can be had from Mr. J. H. Freeman, Carpenters' Hall, London Wall, E.C.

*Girders for Shop Front.*

In reply to a query under this heading given on page 225 of our issue for September 30, a mistake occurs, the abbreviation "ft." having been incorrectly inserted after the number 2 in two places.

*Strength of Riveted Connections Columns.*

NOTSEM writes: "When checking certain drawings of a steel-framed building I found that the connection of one of the girders to the stanchion was somewhat unusual. The sketch herewith will explain the method proposed. There are other girders coming into the stanchion but as these are immaterial I have not shown them. What will be the stress in the rivets? On the one hand, it is assumed that the stress is simply 22 tons (the reaction from the girder), divided by the area of the rivets, which produces a stress of about 5.5 tons per sq. in. shear, and therefore allowable. On the other hand



it is argued that there is an additional stress set up owing to the eccentricity, shall be glad if you will let me have the benefit of your advice on this point."

—The problem is not such a simple one as the querist suggests; it is one stage more complicated than the case of the ordinary cleat dealt with in my article in your issue for February 1st, 1911, because there are two groups of rivets in question—between the beam and plate, and between the plate and column. This makes a rigid connection between the beam and column, and the bending moment which the group of rivets has to resist depends on the relative stiffnesses of the beam and the column, and cannot be accurately obtained, except for certain standard cases, without a very laborious mathematical analysis. The question of the column-bending moments is dealt with by Mr. Oscar Faber, B.Sc., A.M.I.C.E., in a recent paper which he read before the Concrete Institute, and also in some recent text-books, such as Morley's "Theory of Structures" (Longmans) and my "Further Problems in the Theory and Design of Structures" (Chapman and Hall). If the most severe condition possible be assumed, such being that which would occur if the column is very stiff compared with the beam, the group of rivets in the joint should be capable of carrying a bending moment equal to that for the end of the beam considered as fixed at the ends—i.e.,  $\frac{WL}{8}$  for uniform loading. The whole subject requires further attention to devise a simpler method of getting a substantial accurate result.

EWART S. ANDREWS.



## THE EXTENT OF THE DAMAGE TO REIMS CATHEDRAL.

extent of the damage done to Reims Cathedral by its bombardment by German guns and the setting fire to the scaffolding which was in position on the north tower at the time—September 19th—is given in reports from various sources, one from Mr. Whitney, a member of the American Institute of Architects, and partner in the well-known firm of Warren and Wetmore; the other from M. Henri Jadart, keeper of the Reims Cathedral and Museum at Reims.

Mr. Warren, who was provided with facilities by the French Government, says: "On September 4th, when the Germans first entered Reims, there was a bombardment of the cathedral by German guns, and four shells fell upon it—the north transept—but little damage was done. . . . On the 17th shells struck it, one on the apse, the other on the north transept. The cathedral was again hit on the next day, the shells falling on the southern flying buttress and on the roof. The building was riddled with shell during the day on September 19th, and about midday the scaffolding surrounding the north tower caught fire. The fire raged for about an hour, and during that time no further bombs struck the roof, but it also on fire.

The fire from the scaffolding descended and reached the north door of the main transept, which caught rapidly, burned for some time, and communicated the fire to the floor of the cathedral. The fire caught ablaze from the fire originating in the scaffold, burning through the roof and destroying the fine wooden tapestries and vestibules surrounding them in the interior, and also calcinating the extraordinary stone sculptures decorating the entire interior of this western transept. These sculptures are peculiar to Reims, being in high full relief and cut in the stone itself instead of being applied. Their loss is irreparable.

The wonderful glass in the nave is completely gone; that of the apse still remains, though greatly damaged.

The fire on the outside calcinated the entire part of the façade, the north transept, and the entire clerestory, with the flying buttresses and the turret crowning the transept. This stone is irretrievably ruined and flakes off when touched. Practically all decorative motifs, whether the flame touched them, are lost. The only treasure was saved at the commencement of the fire, and the tapestries for the Reims Cathedral were fortunately removed before the bombardment. Half the stained glass has been destroyed; the organ case, and several crucifixes and pictures in the apse are untouched.

Nothing remains of the monument owing to its strong construction. The vaults and the flying buttresses are of a robustness which resist even modern engines of destruction. On September 24th, when the bombardment was resumed, three shells landed on the cathedral, but the structure resisted and were not even perforated. Had the cathedral of Amiens received the same punishment, the vaults, owing to the lightness of construction, would have given way and the flying buttresses would have crushed in the walls. The flying buttresses would have remained but a mass of rubble stone, with the exception perhaps of the ruined towers."

M. Jadart, in the "Journal des Débats," says: "Our wonderful monument has not

collapsed under the fire of the German shells; the structure stands firmly on its broad foundations, porch, nave, and apse. The flames have consumed the magnificent timbers of the roof that were models of their kind, the leaden roofing, the famous carillon. The upper galleries are still standing, and the arches (?) of the transept. The scaffolding that was resting against the north tower from the ground up to the King's Gallery acted as a furnace. It damaged the base of the tower and irreparably destroyed several of the wonderful statues on the gate of the Saints of Reims—St. Remi, St. Thierry, and others, including the effigies of angels. On the other side the head has fallen from the statue of the Queen of Sheba. The whole sight is pitiable."

In addition to the cathedral, a great deal of damage has been done to other famous buildings in Reims. The entire quarter of the city situated between the cathedral and the enemy's lines is destroyed, including the Episcopal Palace, which contained the archaeological museum, the Episcopal chapel, and what was known as the "Apartment of the Kings." The Church of St. Remi was shelled by the Germans on September 25th, when one shell, exploding in the interior, destroyed an immense quantity of glass. The civil hospital, which occupies the cloisters of St. Remi, received nine bombs.

*Protests by Art and Antiquarian Bodies.*

The National Society of French Antiquaries, at a meeting held at the Louvre on September 23rd, recorded a protest in which they said: "Our glorious historical sanctuary, the incomparable marvel of mediæval French art, has fallen to the flames! The civilised universe is struck with stupor on hearing of this monstrous sin, the shame of which will fall for ever on those who coldly premeditated such an act. The light of the flames of Louvain and Reims will remain ineffaceable and cry for vengeance. Those flames will light up posterity. The Society of French Antiquaries protests indignantly against these repeated outrages by the German Army on the most sacred rights of science, of art, of faith, of humanity. The Society earnestly invites French and foreign societies to add their protests."

From Petrograd the Society for the Protection of Historic and Artistic Monuments in Poland telegraphed: "Impressed by the terrible news of the destruction of Reims Cathedral, the Society expresses its most profound grief at the irreparable loss suffered by France and the culture of the world."

In this country a protest against the vandalism of German soldiers has been drawn up by an influential committee and copies of it have been sent to the Comte de Lalaing, Belgian Minister in London; the American Ambassador, with a humble request that it may be forwarded to the President of the United States; and Baron Kervyn de Lettenhove, art adviser to the Belgian Government. The signatories include well-known collectors; Trustees of the British Museum, the National Gallery, the National Portrait Gallery, and the National Galleries of Scotland; the Director and Principal Librarian of the British Museum; the Directors of the National Gallery, the Victoria and Albert Museum, and the National Galleries of Scotland and Ireland; the Keepers of the Wallace Collection and the National

Gallery of British Art; Keepers in the British Museum; the Joint Honorary Secretaries of the National Art-Collections Fund, and many critics and others prominent in the art world. In this protest the signatories claim that they are in no sense a partisan body. "Their contention in this matter is that the splendid monuments of the arts of the Middle Ages which have been destroyed or damaged are the inheritance of the whole world, and that it is the duty of all civilised communities to endeavour to preserve them for the benefit and instruction of posterity. While France and Belgium are individually the poorer from such wanton destruction, the world at large is no less impoverished. On these grounds, therefore, we desire to express our strong indignation and abhorrence at the gratuitous destruction of ancient buildings that has marked the invasion of Belgium and France by the German Army, and we wish to enter a protest in the strongest terms against the continuance of so barbarous and reckless a policy. That it is the result of a policy and not of an accident is shown by the similarity of the fate of Louvain, Malines, Termonde, Senlis, and finally Reims."

*Mr. Thomas Hardy's Letter.*

Mr. Thomas Hardy, the greatest living English novelist, who, as is well known, began his career as an ecclesiastical architect, has written a letter in which he expresses his views on the suggested "restoration" of Reims Cathedral. After observing that the majority of people seem to imagine that the demolished parts can be renewed, he says: "Only those who, for professional or other reasons, have studied in close detail the architecture of the thirteenth and fourteenth centuries are aware that to do this in its entirety is impossible. Gothic architecture has been a dead art for the last three hundred years, in spite of the imitations thrown broadcast over the land, and much of what is gone from this fine structure is gone for ever. The magnificent stained glass of the cathedral will probably be found to have suffered the most. How is that to be renewed? Some of it dated from the thirteenth century, and is inimitable by any handworkers in the craft nowadays. Its wreck is all the more to be regretted in that, if I remember rightly, many of the windows had already in the past lost their original glass. Then the sculpture and the mouldings and other details. Moreover, their antique history was a part of them, and how can that history be imparted to a renewal? . . . If I had been told three months ago that any inhabitants of Europe would willingly damage such a masterpiece as Reims Cathedral I should have thought it an incredible statement."

*A New Book on Bruges.*

Messrs. Batsford will publish about the middle of this month a book entitled "Bruges: A Record and an Impression," by Mary Stratton, illustrated by Charles Wade. The book, which has been in preparation for some time, should be of exceptional interest at the present time. Mr. Charles Wade, who has made the pen-and-ink drawings that illustrate the letterpress, is an artist whose work, although not hitherto brought before the public, has attracted considerable attention amongst those who have seen it.



## SPECIAL LEGAL REPORTS.

**Alleged Inefficient Damp-Course.***Waddington v. Sheffield Corporation.*

October 6. Sheffield Police Court. Before Mr. S. G. Richardson (Chairman), and Mr. E. H. Banner.

In this case Albert Waddington, builder, of Sheffield, was summoned for failing to put in an effective damp-course in a block of buildings he was erecting in Vickers Road, Firth Park. Mr. H. G. Adams, of the Town Clerk's department, said defendant had in hand the building of thirty-six houses. In block No. 3 a damp-course of bitumen was being put in, which was of such a quality that it would crack, and was so thin that a sharp edge of the building material might penetrate it. The builder was warned that this would not be passed, but he decided to go forward with the work. The committee wanted it to be understood that that quality of damp-course would not do in Sheffield.—Mr. Joseph Hirst, City Architect for Hull, said that a good bitumen damp-course should stand any amount of bending, and the way in which the sample had cracked was proof that it was not impervious to moisture.—Mr. George H. Widdows, Architect to the Derbyshire Education Committee, agreed with the previous evidence, and said that the way in which the sample of bitumen could be pulled from the fabric showed the poor quality of the material.—Mr. T. E. Ellison, who defended, argued that this material and quality was effective as a damp-course, as was proved by the fact that it had been used in the houses which had been occupied for some time, and no complaint of dampness had been made.—Mr. John Lancashire, architect, said he had tested with water the damp-course used in the houses, and found it absolutely impervious.—Mr. James Wilkinson, President of the Sheffield Master Builders' Association, and other witnesses, said the course used was a good one.—The Chairman said the Bench were not satisfied that this particular form of damp-course contravened the by-laws, and they had decided in favour of defendant.

**Alleged Breach of the London Building Act.***Brown v. George Trollope and Colls and Sons, Ltd.*

October 7. King's Bench Division. Before Mr. Justice Sankey.

Mr. P. Wheeler applied ex-parte to his lordship in this case for an injunction to restrain the defendants, the well-known builders, who are excavating for a building in Abchurch Lane, E.C., from proceeding with their work without giving the notice required under the London Building Act. Section 93 of the London Building Act required that where the building owner intended to erect within 10 ft. of a building belonging to an adjoining owner, and at a lower level, he must give such notice as the section required. His motion was to restrain the defendants proceeding with the work in contravention of the section. The defendants were endangering the stability of the plaintiff's building by the depth to which they had gone. The short facts were these. The plaintiff was the owner of premises standing in Abchurch Lane, and had held them since 1873. The defendants were erecting a building on the opposite side of the lane, which was only 17 ft. wide. Plaintiff's building went down 12 ft. below the surface. Plaintiff had found that the defendants had excavated 20 ft. below the surface and had gone under the soil of Abchurch Lane, and within 9 ft. of

plaintiff's foundations, in order to lay their foundations. In this way they had contravened the section in question, coming within 10 ft. of plaintiff's building.

Counsel then read affidavits in support of his ex-parte motion, and from them it appeared that the defendants were within 7 ft. of plaintiff's foundations and 8 ft. below his foundations. This had endangered the stability of plaintiff's building. Counsel said the writ in the action was issued the previous day. He asked for leave to amend his writ in order to restrain the defendants from endangering the stability of his client's structure.

His lordship granted the plaintiff an interim injunction in the terms of the notice of motion over the first motion day in next sittings, the plaintiff giving the usual undertaking.

**ARCHITECTURAL EDUCATION IN THE NEW SESSION.**

Although the war, by drawing away such large numbers of young men of student age, must greatly interfere with the educational work of the session now begun, the prospectuses of the various institutions show no sign of diminished activities. The programmes all indicate "business as usual," in spite of the prospect of greatly diminished attendance; and this is as it should be. Below are given brief notices of some of the principal prospectuses:

*Architectural Association.*

Of the A.A. School of Architecture, 18, Tufton Street, Westminster, the head master is Mr. Robert Atkinson, A.R.I.B.A., other masters being Mr. Alan Potter, Mr. Walter M. Keesey, Mr. R. Lowry, and Mr. L. H. Bucknill. Other lecturers, etc., are Messrs. Theodore Fyfe, Aymer Vallance, W. H. Ward, A. O. Collard, E. Constable Alston, and H. F. Waring. Mr. B. Scott Holmes, B.A., is the School Registrar. The terms are as follows: Winter, September 28, 1914, to December 18, 1914; spring, January 11, 1915, to April 1, 1915; summer, April 26, 1915, to July 16, 1915. These apply to the Evening School as well as to the Day School. Of the Evening School the lecturer on theoretical and practical construction is Mr. C. E. Varndell, the master of the Evening Design School being Mr. H. M. Robertson. The prospectus contains syllabuses of the various lectures and gives full particulars as to fees, scholarships, prizes, etc.

*University of Liverpool School of Architecture.*

In the School of Architecture of the University of Liverpool, School Lane, Liverpool, the staff is as follows: Architecture, Roscoe Professor, C. H. Reilly, M.A., F.R.I.B.A. (in charge of the School); Lecturer in Building Construction, L. P. Abercrombie, M.A.; assistant lecturers and studio instructors, L. B. Budden, M.A., A.R.I.B.A., and H. A. Dodd, M.A., A.R.I.B.A. Ecclesiastical Architecture: Reader, G. Gilbert Scott, F.R.I.B.A. Drawing: Professor, S. D. Adshead, F.R.I.B.A. Modelling: Recognised Teacher, C. J. Allen (City School of Art). Studio instructor in Evening Design Class, H. A. Dodd. Building Materials: Demonstrator, H. J. Whitby. A.R.San.I. Greek Art: Professor of Classical Archaeology, R. C. Bosanquet, M.A., F.S.A. Graphic Statics: Harrison Professor of Engineering, W. H. Watkin-

son, M.Eng., etc. Reinforced Concrete: Lecturer, H. E. L. Martin, A.M.Inst.C.E. Professors and lecturers in various faculties of the University also available. Professor Adshead is in charge of the Department of Civic Design and is assisted by lecturers and professors in landscape design, civil engineering, civic hygiene, and civic law. Teaching of design is based upon the method of the Ecole des Beaux-Arts at Paris and the American School of Architecture adapted to meet our somewhat different requirements. The courses lead to University degrees, diplomas, and certificates, including exemption from R.I.B.A. Intermediate Examination from probationary work for entrance to the Royal Academy School of Architecture. Terms: Autumn, October 18 to December 18; Lent, January 18 to March 26; summer, April 27 to July 1. There are several scholarships and prizes.

*University of London School of Architecture and Department of Town-planning at University College.*

The professor and director of the School of Architecture is Mr. F. M. Sims, F.R.I.B.A., other professors, lecturers, etc., being Leslie Wilkinson, A.R.I.B.A., Arthur Stratton, F.R.I.B.A., F. Prof. S. D. Adshead, M.A., F.R.I.B.A., and a dozen others. Terms: 1st, October 5 to December 18; 2nd, January 18 to March 26; 3rd, April 27 to July 1. The prospectus is obtainable from the Secretary, University of London, University College, Gower Street, W.C.

*University of Sheffield Department of Architecture.*

The lecturer in the Department of Architecture is W. S. Purchon, A.R.I.B.A., who is assisted by a large number of lecturers and instructors. The degree, certificate, and diploma courses are held on day and evening. The session began on October 7, and prospectuses may be obtained from the Registrar, Mr. V. Gibbons.

**FOR KING AND COUNTRY.**

To the list of architects and other who have joined the Forces, published in columns during the last few weeks, we may add that fourteen employees of Messrs. Kerner-Greenwood and Partners, makers of "Pudlo"—at King's Lyons, now on active service, and their families are being kept open for them. The offer of working for the remainder of the war have not been reduced, nor is it anticipated that they will be.

Mr. Edwin Smith, A.R.I.B.A., P.S.A., assistant in the Architect's Department of the Glamorgan County Council, West Division, and Mr. S. Knight Thompson, chief assistant to Mr. J. Cook, M.S.A., of Neath, have joined the Engineer Unit of the Royal Naval Division.

Mr. Raymond W. G. Card, one of our Canadian readers, has joined the Own Rifles of Canada, forming part of the first Canadian contingent. From Mr. Harold Falkner, in banishment at Carlow, Ireland, where there are eighteen members of the Architectural Association, we have received a letter saying that the Journal may be sent to them, "as we shall be here for months and do not want altogether to lose touch with what is happening in the architectural and building world." We readily fall in with the suggestion, and will forward copies week by week.



## COMPETITIONS.

*R.I.B.A. Problems in Design.*

designs submitted under Subject have been on view this week in the of the Royal Institute of British Architects, Conduit Street, W. The exhibition closes to-day (Wednesday) at

*Public Baths, Hendon.*

award of the assessor (Mr. H. W. F.R.I.B.A.) in this competition is as follows: 1st, T. Millwood Wilson, late R.I.B.A., London, W.C.; 2nd, J. and Chapman, F. and A.R.I.B.A., St. Leon-Tyne; 3rd, Alfred W. S. F.R.I.B.A., London.

*Sanatorium, Salford.*

design submitted by Messrs. J. and Curbon, of Manchester, for a sanatorium proposed to be erected at Salford, has been approved by the Health Committee of the Salford Town Council, and have adopted the assessor's recommendation, and premiums of fifty guineas have been awarded to Mr. Joseph J. A.R.I.B.A., Mr. John T. Profit, and Mr. Henry Lord, F.R.I.B.A.—all of Manchester.

*Housing, Doncaster.*

competition among architects practising in England and Wales is proposed to be held by the Doncaster Corporation in connection with the design of 102 houses which are to be erected in a new district—Carr-with-Elmfield—that will shortly form part of the borough.

*Historical Painting, Glasgow.*

Glasgow Corporation have received fifty designs submitted in the preliminary competition for a painting representing a subject of Scottish history.

*Workmen's Dwellings, Northampton.*

Last week's meeting of the Northampton Town Council the Mayor, Councillor J. J. asked who had been responsible for the conditions sent out to architects by the Committee in respect to proposed workmen's dwellings at Hollowell? Was it the committee or the Water Engineer? Councillor Chown said the committee thought they would give the architects a chance, if they thought well, of sending in plans of a simple cottage. It was not a question of building or taking over the design of cottages, and the committee had to offer a £10 premium. (This is a competition which the R.I.B.A. and the Society of Architects have vetoed, as stated in last week's issue.)

## OF COMPETITIONS OPEN.

OCTOBER 14. TECHNICAL SCHOOLS AND DRAWING OFFICES AT SOUTHPORT.—Premiums £75, £50, and £25. Assessor, Paul J. House, F.R.I.B.A. Particulars, on application of 5s., from T. E. Jarratt, Town Clerk, Southport.

OCTOBER 21. TWO SEMI-DETACHED HOUSES AT FRITTON.—Plans, with specifications and estimate, invited by R.D.C. of Fritton and Lotheringland. No premiums. For or selected design to receive usual consideration on houses being built. Particulars from W. Bryan Forward, Clerk R.D.C., 148, London Road, Lowestoft.

OCTOBER 26. COTTAGE HOMES AT FRITTON.—Plans invited for one of a series of cottages to be erected by Guardians of Fritton and Lotheringland Union. No premiums. Author of selected design to be employed on usual terms. Particulars from F. W. Osbourne, Clerk to Guardians, 148, London Road, Lowestoft.

OCTOBER 31. LAY-OUT OF GROUNDS AT ADELAIDE.—Premium £500, £200, and £100. Particulars from Secretary, Royal Agricultural and Horticultural Society of South Australia, 23, Waymouth Street, Adelaide.

OCTOBER 31. POLICE BUILDINGS AND FIRE STATION AT ST. HELENS.—Premiums £100, £50, and £25. Particulars from A. W. Bradley, M.I.C.E., Town Hall, St. Helens.

## SOCIETIES AND INSTITUTIONS.

*Manchester Society of Architects.*

The Kalendar of the Manchester Society of Architects for 1914-15 has just been issued. The annual report of the Education in Architecture Committee for the past year states that a new scheme of prizes which transfers to the Manchester School of Architecture much of the work formerly done by the Committee has been inaugurated. The object of this scheme is to bring the work of the School of Architecture and that of the Society into closer touch, the Professor of Architecture having felt that the continuity of the students' work was often interrupted by competition for the Society's prizes. Under the new scheme the prizes are given for work done through the session in a regular sequence, and the committee feel that this is much more beneficial to the students' education. It is hoped that the change will result in material benefit to architectural education in Manchester. At the School of Technology a special course of lectures on "Specifications, and the Aesthetic Properties of Building Materials" is being given during the forthcoming session by Mr. J. Theo. Halliday, A.R.I.B.A.

*Institution of Mechanical Engineers.*

The first general meeting of the session, 1914-1915, will be held on Friday, October 16, at 8 p.m., at the Institution, Storey's Gate, St. James's Park, Westminster, when Sir J. Alfred Ewing, K.C.B., LL.D., F.R.S., chairman, will read the report of the Refrigeration Research Committee. The monthly meetings of graduates will begin on Monday, October 12, at 8 p.m., when a paper on "The Reclamation of Waste Products in Industrial Undertakings" will be read by Mr. George H. Ayres.

*Liverpool Master Builders' Association.*

The annual meeting of the Liverpool Master Builders' Association was held on October 6. The annual report, showing a large amount of important work carried out, was adopted. The senior vice-president, Mr. David J. Hall, was elected president for the coming year, and took the chair, a vote of thanks being passed to the retiring president, Mr. Harold E. Cubley, for his services during the past year. The following further officers were elected:—Mr. R. Morrison, senior vice-president; Mr. W. A. Barnes, junior vice-president; Mr. Thomas Jones, treasurer; Mr. J. Sirett Brown and Mr. Henry Lever, hon. auditors.

*Scottish National Building Trades Federation.*

The twentieth annual general meeting of the Scottish National Building Trades Federation was held at Aberdeen on October 5. Satisfactory reports were made upon the progress of the organisation of the Federation. Reports of the negotiations for the establishment of universal conditions of contract and modes of measurement were submitted. Office-bearers for the ensuing year were appointed as follows:

President, Mr. George Lyall, jun., J.P., Aberdeen; vice-presidents—Mr. Henry H. Spittal, Glasgow, and Mr. Edward Bruce, Edinburgh. A Board of Directors was also elected.

*Society of Architects.*

The ground covered by the members of the Society of Architects during their visit to Belgium in 1891, when they were received by the then King of the Belgians (Leopold II.), is now the scene of so much architectural devastation that peculiar interest attaches to the Society's meeting to be held at 28, Bedford Square, W.C., on October 22 at eight p.m. Mr. G. A. T. Middleton, A.R.I.B.A., the organiser of the tour in 1891, will exhibit lantern slides of the principal buildings then visited, and also some others showing the devastation caused by the German bombardment. The lecture is free to members and friends introduced by them, and a few invitations are available, so far as the accommodation will permit, for others who may be interested. Written application for these must be made to the Secretary.

*Glasgow Architectural Craftsmen's Society.*

The nineteenth session of the Glasgow Royal Technical College Architectural Craftsmen's Society was inaugurated on September 21, when the president, Mr. Alexander Davidson, Licentiate R.I.B.A., delivered an address on "Duty." The true relations which should exist between the architect, the surveyor and the contractor upon works in progress were traced, and the axiom was applied to the Society with regard to the hearing and debating on the several papers throughout the session.

## NEWS ITEMS.

*The Replanning of Athens.*

Mr. Thomas H. Mawson, Hon. A.R.I.B.A., has received a letter from M. Bernachi, the Mayor of Athens, informing him that he is to proceed with his scheme for the replanning of Athens.

*Town Planning, Surbiton.*

The Local Government Board have given authority to the urban district council of Surbiton to prepare a town planning scheme under the Housing, Town Planning, etc., Act, 1909, in respect of an area of about 1,553 acres in the urban district.

*Public Buildings as Drill Centres.*

The Town Hall Committee of the Manchester Corporation, who have charge of all the public rooms and halls owned by the Corporation, have had under consideration the question of allowing certain rooms to be used for drilling purposes. The City Architect deprecates the use of public rooms above the ground floor for the purpose of drilling, because of the vibration, which would be detrimental to the stability of the building generally and injurious to the floors. The Committee have agreed to authorise the use of rooms on the ground floor only.

*The Safety of St. Paul's.*

Canon Alexander states that, like most other funds, the St. Paul's Cathedral Preservation Fund has been very seriously affected by the war. Nearly half of the sum required had been raised before hostilities commenced. The work, however, on the building had been continued, and much useful strengthening had already been carried out, though the more critical part of it had not yet been begun. Every



stone was being examined, and it was hoped to strengthen or solidify the structure in such a way that it would be more solid and massive than when it was first built.

#### *Shorter Time on Liverpool Cathedral.*

The Executive Committee of Liverpool Cathedral received a resolution from the masons working on the building offering, "in the event of its becoming necessary to curtail expenses on the new cathedral through the present crisis, to work shorter hours rather than there should be either a closing down of the job or a discharging of any workmen." The Executive Committee according resolved to reduce the rate of expenditure on the building, it being understood that this reduction will not involve the dismissal of any men, but will relate only to a reduction of the working hours as suggested.

#### *University Museum Lectures.*

Owing to recent revision of Museum regulations, Mr. Banister Fletcher's weekly lectures on Gothic architecture at the Victoria and Albert Museum on Mondays will be at 4.30 instead of 5 p.m. as previously advertised.

#### *The Admiralty Arch Improvement.*

Permission has been given to the Liverpool and London and Globe Insurance Company, Ltd., to erect a temporary office building at the corner of the Mall Approach and Spring Gardens during the improvement of the approach to the Mall from Charing Cross.

#### *Lead Supply.*

It would appear that the fears of a shortage in the supply of lead are not well founded. The vast quantities formerly taken by Germany from Australia having necessarily stopped, this large source of supply should be naturally diverted to England, and is thought to be ample for requirements. It is true that large quantities of this metal are being consumed by Russia, but it is stated that large orders for that country have been cancelled in consequence of Russian importers being short of funds. It is also stated that the American lead market is just now remarkably easy, abundant supplies being obtainable at fairly cheap rates.

#### *Birmingham's Great Housing Scheme.*

The special Housing Enquiry Committee of the Birmingham City Council has prepared an interim report in which it is pointed out that there are within the boundaries of the city 149,228 houses at rentals under 10s. and 67,052 under 6s., of which 43,366 are of the back-to-back type; 27,518 houses are situated in court-yards, and 42,020 have no water supply inside the dwelling. It is calculated, therefore, that any scheme of rehousing the population now provided with inadequate accommodation would have to contemplate the erection of not less than 50,000 houses. During recent years the migration of the working classes from the centre to the suburbs has almost ceased because sufficient new houses are not being erected. The committee is therefore of opinion that a resumption of building in the suburbs is a necessary preliminary to more drastic measures in the centre. To that end it is recommended that the Council should purchase estates in the undeveloped areas and, after developing them, let the frontage to public utility societies and builders, imposing suitable restrictions on ground rents.

## PROJECTED NEW WORKS.

#### *Isolation Hospital, Littlehampton.*

Littlehampton Urban District Council have applied for sanction to a loan of £3,000, for the extension of their isolation hospital at Wick. An inquiry has been held.

#### *Grammar School, Ulverston.*

The Lancashire Education Committee are considering a scheme for the enlargement of the Victoria Grammar School, Ulverston, at an estimated cost of £6,300.

#### *Children's Hospital, Manchester.*

The South Manchester Guardians have received permission from the Local Government Board to proceed with their scheme for building a children's hospital.

#### *Carnegie Libraries, Nottingham.*

The Carnegie Trustees having offered to give £15,000 to cover the cost of building, the Nottingham Corporation have decided to proceed with the erection of four new branch libraries and reading rooms.

#### *School, Selby, Yorks.*

The West Riding County Council propose to build a new elementary day school on Flaxley Road, Selby, with accommodation for 750 children, and ultimate accommodation for 1,000 children.

#### *Grand Pavilion, Bournemouth.*

Approval of the Local Government Board has been given to the Bournemouth Corporation for their scheme for a sea-front pavilion, to cost £60,000. Details of administration only now remain to be settled with the Board.

#### *Housing Schemes, Barking.*

The Barking Urban District Council have received the sanction of the L.G.B. to the erection of thirty artisans' dwellings in Gascoigne Road. The Public Health Committee are also seeking to obtain land in Movers Lane, for a housing scheme.

#### *Housing Scheme, Dundee.*

Dundee Town Council have instructed the City Engineer, who is preparing a report on municipal housing, to submit plans showing the designs of three-roomed cottages to be erected in a suburban area, and also designs of tenements of one and two rooms, with the cost.

#### *Alterations Billericay.*

At the last meeting of the Billericay Board of Guardians the Building Committee reported on new proposals for structural alterations and additions to meet the requirements of the Local Government Board. The estimated cost was £4,827, exclusive of lighting and plus establishment charges. The matter was deferred pending a report from the Local Government Board.

#### *£70,000 Housing Scheme, Bolton-on-Deane.*

A Local Government Board inquiry has been held into the application of the Bolton Urban District Council for sanction to borrow £71,000 for purposes of providing houses for the working-classes. One scheme of fifty houses has already been carried out, and now it is proposed to erect 310 houses to meet the heavy demand for accommodation imposed on the district by a large colliery at Barnburgh, which is now being opened out. The houses will be erected at Bolton-on-Deane and at Highgate, adjoining the proposed light railway, for which the sanction of the Board of Trade has already been obtained. The total amount to be spent will be allocated

as follows:—Purchase of land, £3,000; erection of houses and shops, £62,000; construction of sewers, £1,500; works, £4,000; fencing, £500.

#### *Improvements, Southport.*

The General Purposes Committee of Southport Council have adopted an extensive scheme submitted by the Parks, Foreshore Committee for the development of the sea front, the estimated cost of which is about £9,000. It includes widening of the marine drive, the erection of a wall 5 ft. in height on the inner side of the drive, to enclose to a large extent what is known as the "lagoon site," the construction of two bowling greens, an open-air concert pitch in the Marine Park.

#### *Building Scheme, Shields.*

A lengthy report on town planning has been presented by a sub-committee of South Shields Council. The Committee express the opinion that the whole of land within reasonable distance of the borough in which there is any prospect of development within the next thirty years at least should be town planned, so that the scheme should not be confined to those areas in regard to which there is an immediate prospect of their being required for building purposes. An area of 2,000 acres has therefore been selected to be dealt with.

#### *New Buildings, Hull.*

The Hull Corporation Works Committee have approved the following building plans: H. Johnson, six houses, Richmond Street; C. Leighton, one house, Beverley High Road; C. Jackson, houses, Beverley Street; W. Atkinson, three houses, Beverley Street; Messrs. Popple, extension of St. Andrew's Dock Extension; Clarendon Trustees, new church, Sculcoates; Oil Manufacturing Company, addition to Stoneferry; Brunswick Chapel, addition to Holderness Road; Premier Oil Mills Company, additions, Stoneferry; J. Peers & Son, engine sheds, etc., 94, Alexandra Road; and Reckitt and Sons, Ltd., extensions, Morley Street.

#### *Large Expenditure on Public Works.*

Between August 4 and September 30 more than 600 applications were made to the Local Government Board by authorities, other than Poor Law authorities, for sanction to loans to defray the cost of schemes for providing work in the case of exceptional distress due to lack of employment. The total amount of the desired exceeded £2,500,000. Forty of the applications related to the erection of working-class dwellings, at a total cost of £512,000. During the period the Board sanctioned loans to the extent of over £3,500,000, as compared with £1,928,000 in the corresponding period of last year. Three large schemes for the construction of new roads, including the western approach road to London, have been arranged with the local authorities before the outbreak of war. These schemes will be put in hand at an early date. In addition, the Road Board has arranged to make grants to an aggregate amount of nearly £450,000 towards the cost of new road construction and road improvement in many parts of the country, which will involve a total expenditure of £1,000,000. These grants will be spread over eighty-one local authorities, and preparations have been made for proceeding with work in each case immediately an exceptional distress from want of employment arises in any of those areas.





## THE DESTINY OF NATIONS

From Egyptian times nations have waxed and waned according to the prowess of their people. Britain is to-day the paramount nation.

She excels in commerce because of her wonderfully loyal colonies, who prefer the motherland's goods.

At home, however, a careless disregard of the source of the purchased product has been evident.

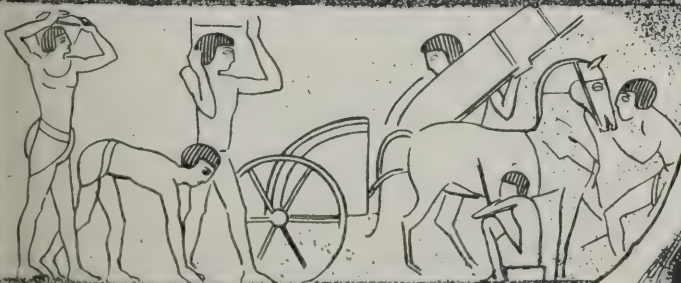
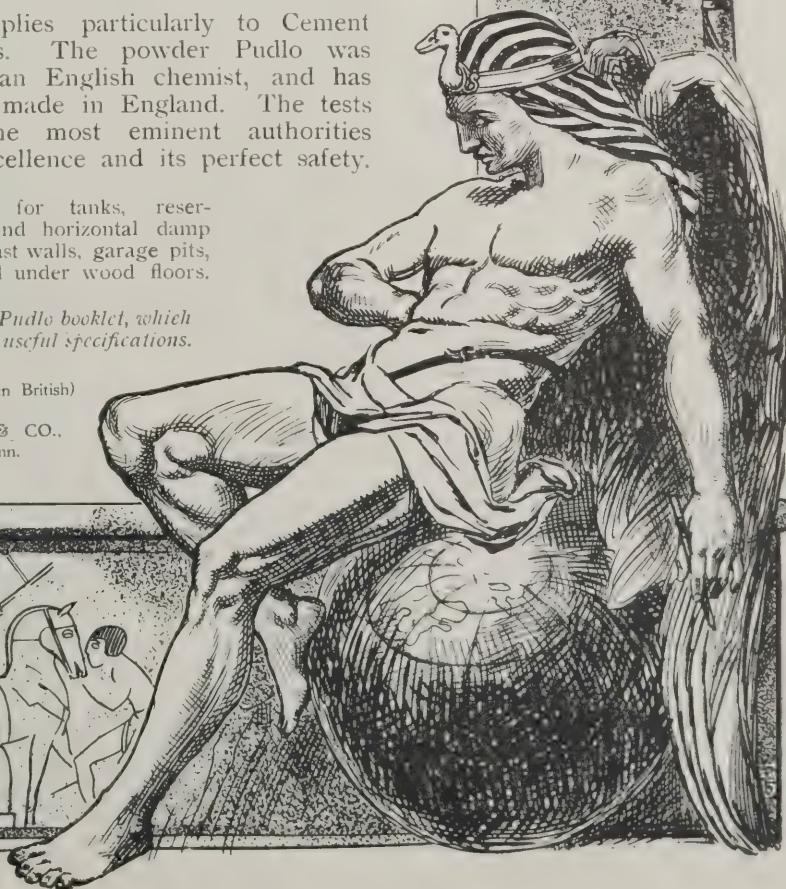
It is not because the British cannot produce a commodity so good as the Germans -- everyone knows the words "British made" stand for "Best."

And this applies particularly to Cement Waterproofers. The powder Pudlo was invented by an English chemist, and has always been made in England. The tests made by the most eminent authorities prove its excellence and its perfect safety.

Specify Pudlo for tanks, reservoirs, vertical and horizontal damp courses, roughcast walls, garage pits, stoke holes, and under wood floors.

*Write for free Pudlo booklet, which contains many useful specifications.*

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EVINGHAM



## ELECTRICAL NOTES.

*Simplex Novelties.*

Messrs. Simplex Conduits, Ltd., were the first to introduce a conduit wiring system, and practically every improvement of importance which has been made since then has been due to their initiative. At one time a few firms who did good wiring work used gas piping and special cast boxes, but, of course, the cost was considerable, so that this method was only employed in certain cases for large buildings. Apart from that, gas barrel had several disadvantages, the chief of which were that the burrs inside the piping damaged the insulation of the wires, and that it was necessary to have a heavy screwing machine on the site and to employ a pipe fitter. When Mr. Waterhouse, now managing director of the company in question, introduced a systematised series of steel conduits and fittings gas barrel quickly disappeared, and the new system very soon became popular and found many imitators.

The company has now introduced two new fittings which will be most useful to wiring contractors, by reason of the economy in material and labour they effect in addition to making a neater job than was possible before. When a conduit containing a circuit or sub-circuit is run along the top of a wall just against the ceiling, and it is required to branch off to a ceiling point in the centre of the room and to a controlling switch-point immediately below, this could only be done by inserting two tee-pieces, one with a horizontal outlet for the lamp wires and the other with a vertical outlet for the switch wires. However close these two tee-pieces are it is impossible for the switch and lamp to be in the same plane, and this spoils the symmetry of the lines of conduits. With the new fittings these troubles are overcome, as two tees are really combined in one. The first fitting is essentially a tee-box with vertical outlet, having a screw on cover provided with a horizontal outlet. The other is an elbow-box for an end light and switch, having a similar cover. The fittings are therefore actually inspection-boxes in addition to their other functions, and the screws of the covers provide the necessary continuity. These fittings are made for  $\frac{3}{8}$ -in.,  $\frac{1}{2}$ -in., and  $\frac{3}{4}$ -in. screwed barrel, and no doubt the company will soon introduce similar fittings for slip joint conduits.

Another novelty is the Plexsim Electric Heat Projector. There are many cases where electric radiators are only required to heat a certain part of the room quickly—that is, where some one may be sitting, at a piano or at work. This duty can be effected with an ordinary lamp radiator, but much of the heat goes in other directions as well. The Plexsim apparatus is based on the Holophane principle, because it is well known that heat or any other kind of rays or vibrations can be projected by means of suitable reflectors or facets. The projector itself is cone-shaped and of metal, with suitable reflecting facets. A longitudinal heating element is fixed axially in the centre of the cone, secured at one end at the apex and at the other by a spider frame. The whole projector is mounted on a trunnion frame fixed to a pedestal. The connection to the circuit is made by a two-pin plug at the apex end, and when in use the element becomes red hot. The facets of the projector connect all the heat rays and throw them forward in a powerful beam, so that a correct balance between light and heat is obtained. The apparatus is listed at the moderate price of 37s. 6d., and takes 1,000 watts.

*"All About Ozonair."*

Under this title Messrs. Ozonair, Limited, of 96, Victoria Street, have issued a new pamphlet, which is of considerable interest. Dealing first with the historical, physical, and commercial aspects of ozone, the pamphlet proceeds to describe in brief the various applications of Ozonair apparatus and systems. Air purification, ventilation, and air cooling receive a good deal of attention. Deodorisation, which is a modification of the ventilation system, and relates to the destruction of offensive smells by means of the powerful oxidising properties of ozone, appears to have been carefully worked out and to be a system of considerable social value. Therapeutics and water purification, the treatment of water of public baths, sewage and other effluents, food preservation and brewing are all touched on. Besides these, the use of ozone seems to cover a wide field in the chemical and industrial world, and an all-too-brief note refers to a system of conditioning air in flour mills by which the output is increased by as much as thirty per cent. To those who are interested in the subject it will be news to learn that ozone will mature wines and spirits in a few minutes equal to years of natural ageing. The pamphlet concludes with an impressive list of clients and testimonials. Incidentally we are informed that an Ozonair apparatus was fitted up under Mr. Asquith's table on the occasion of his recruiting speech at Cardiff on October 2, because the Premier was suffering from an attack of asthma, and ozone gives considerable relief in this troublesome complaint.



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have a purity of conception, a dignity and a certain distinction of which we are proud

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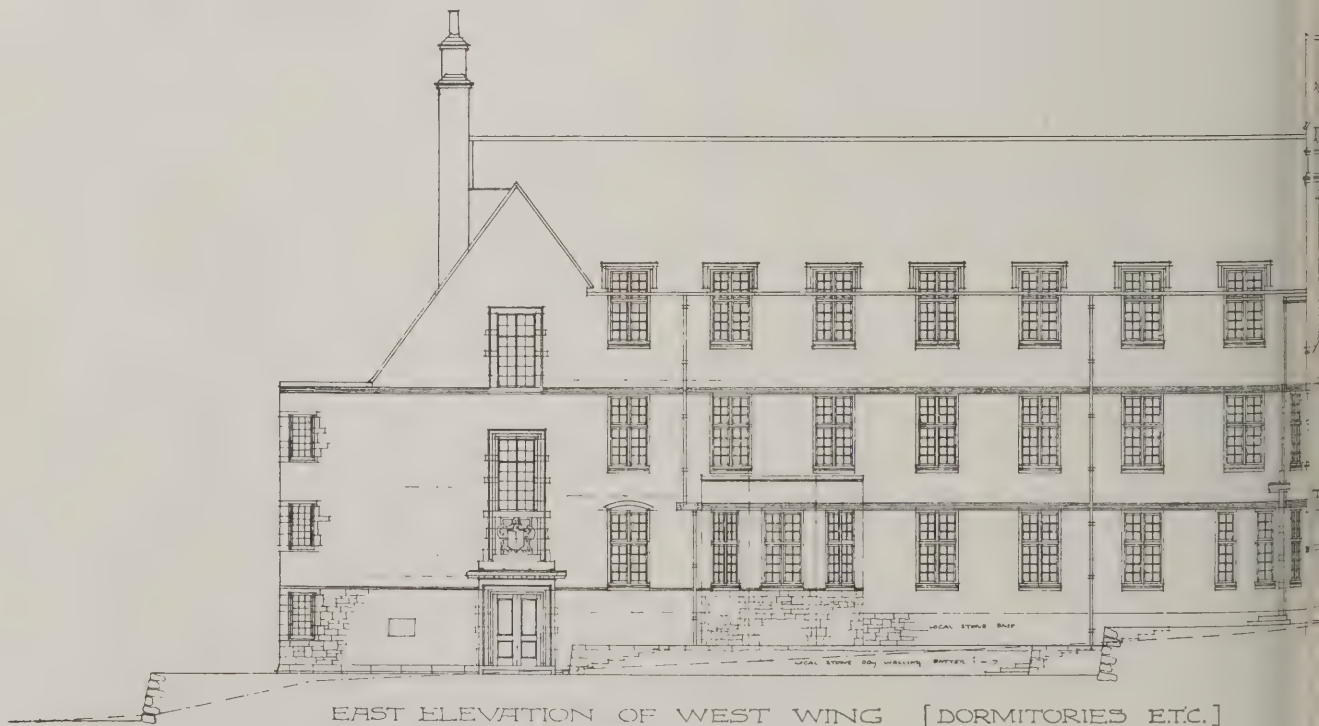
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SUTTON VALENCE



← ASSISTANT MASTERS' HOUSE →



EAST ELEVATION OF WEST WING [DORMITORIES ETC.]

10 0 10 20 30 40 50

WORKING DRAWINGS BY WELL-KNOWN ARCHITECTS

H. PERCY ADAMS, F.R.I.B.A., A.D.

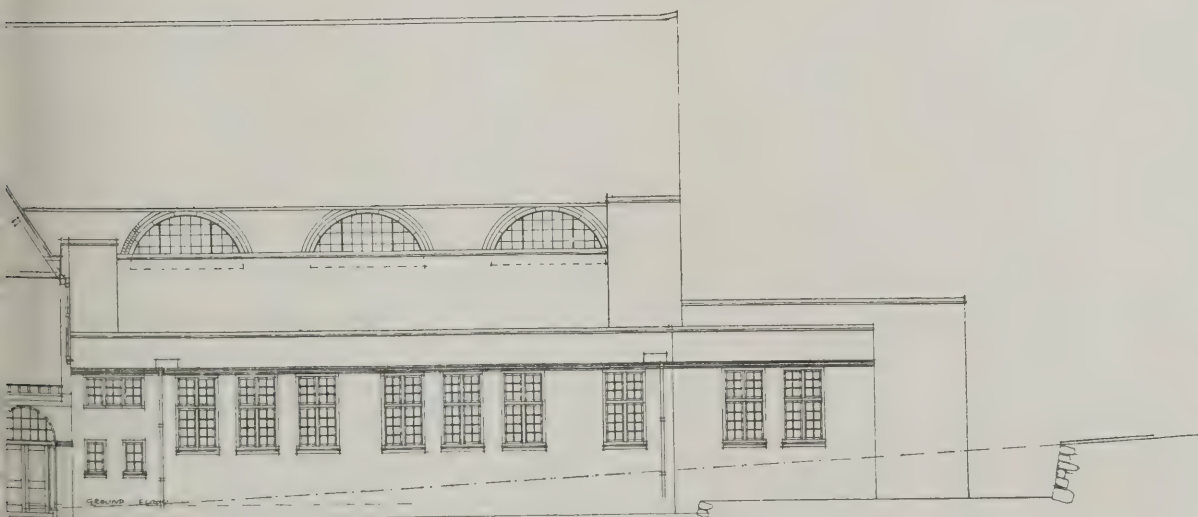


MAIDSTONE KENT



ON

HEAD MASTER'S HOUSE



EAST ELEVATION OF SCHOOL BLOCK

H PERCY ADAMS }  
CHARLES HOLDEN } ARCHITECTS  
28 WOBURN PLACE  
RUSSELL SQUARE W.C.

100

150

Feet

XLI.—SUTTON VALENCE SCHOOL, MAIDSTONE.

DEN, A.R.I.B.A., ARCHITECTS.



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FRENCH EMPIRE FURNITURE. I.—ARM-CHAIR IN THE GRAND TRIANON, VERSAILLES.









COTTINGHAM'S DESIGNS FOR IRONWORK. XXIV.—LAMP STANDS.









MONUMENTAL ARCHITECTURE. XXX.—ÉCOLE DE GUERRE, PARIS.







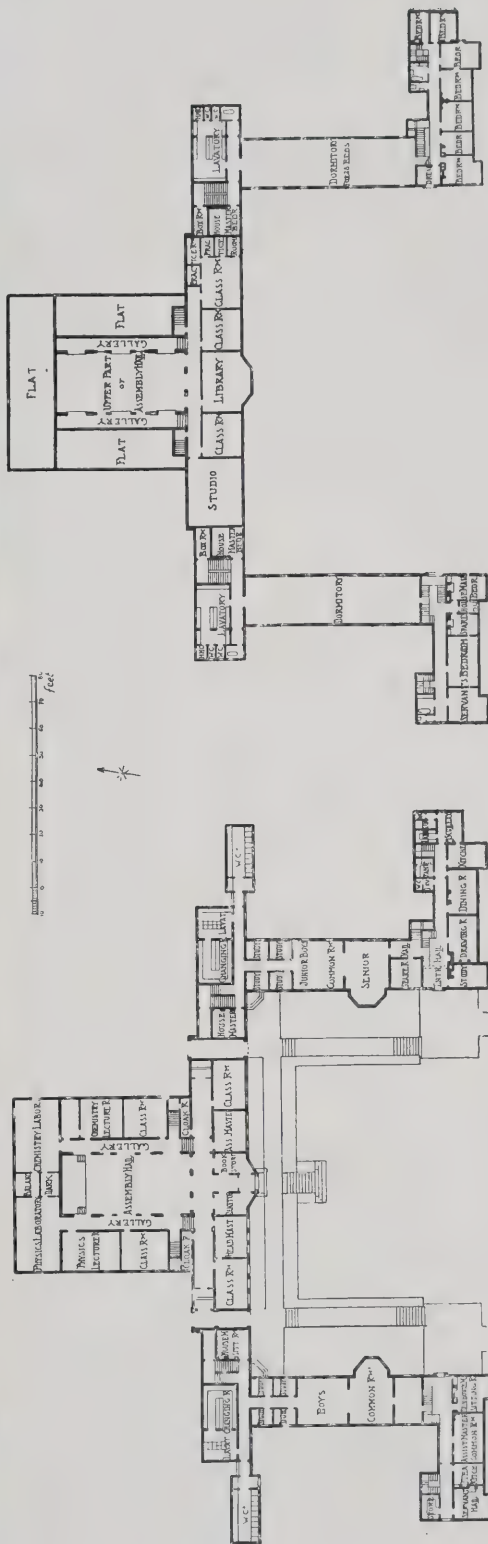


SMALL HOUSES OF THE LATE GEORGIAN PERIOD. XXX.—DOORWAY, LOWER KENNINGTON LANE, LONDON, S.E.









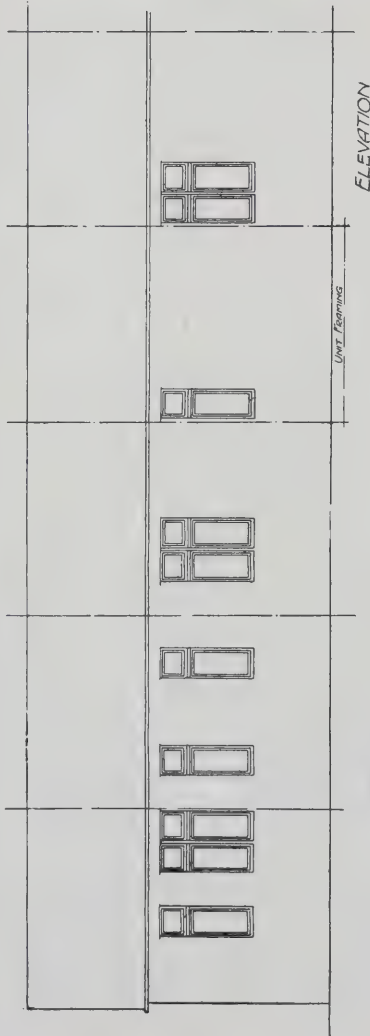
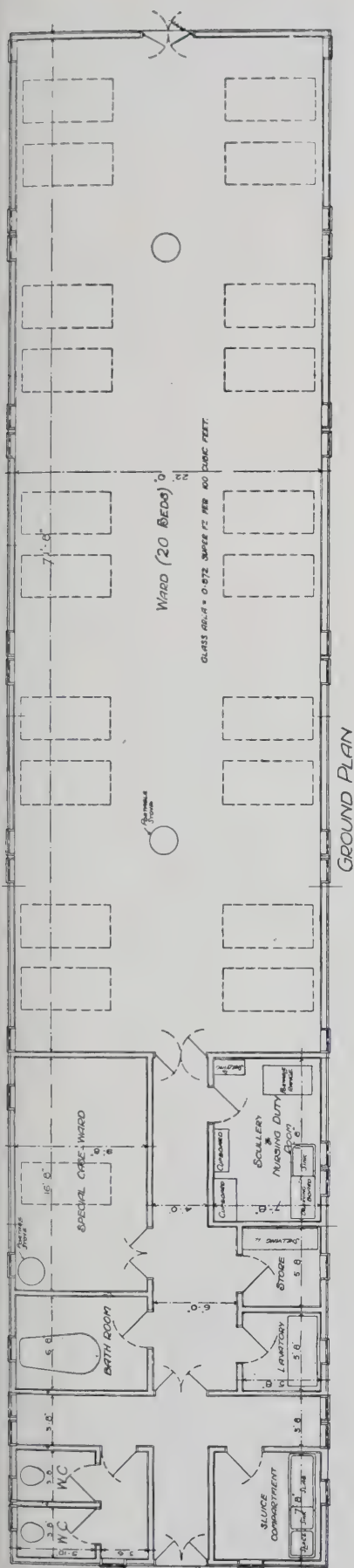
CURRENT ARCHITECTURE. LXXXIII.—SUTTON VALENCE SCHOOL, MAIDSTONE.

H. PERCY ADAMS, F.R.I.B.A., AND CHARLES HOLDEN, A.R.I.B.A., ARCHITECTS.





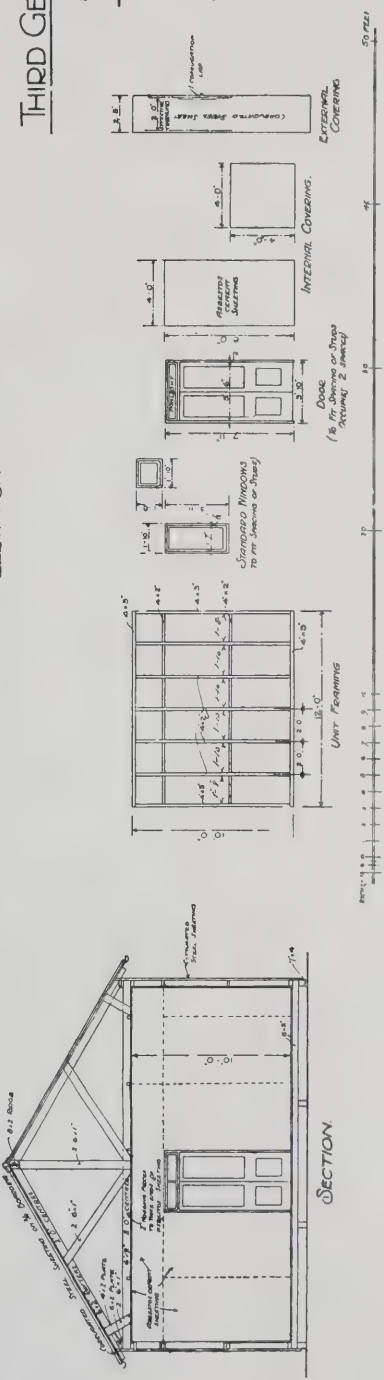




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1 SP CASE

AREA PER BED 79 SQ SUPER APPROX  
CUBIC SPACE OF 780 CUBE



CURRENT ARCHITECTURE. LXXXIV. - TEMPORARY HOSPITAL, WANDSWORTH, S.W. (WAR OFFICE.)



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# THE ARCHITECTS' & BUILDERS' JOURNAL.

Wednesday, October 21, 1914.

Volume XL. No. 1033.

No. 107.



*(From Piranesi.)*



# THE ARCHITECTS' & BUILDERS' JOURNAL.

OCTOBER 21, 1914.

TOTHILL STREET, WESTMINSTER.

VOLUME 40. No. 103.

## EDITORIAL.

WITH respect to the construction of military huts, the plasterers are complaining that too much timber is being used. Their main grievance is, it seems, that while employment among plasterers is declining, carpenters are, in certain military districts, working at high pressure. This extensive use of wood, it is pointed out, is doubly extravagant, because timber happens to be the only material that has risen at all considerably in price, and because excessive consumption, coupled with the difficulty or uncertainty of obtaining further regular supplies, may accentuate the trouble until it becomes acute. Although we by no means share this not wholly disinterested anticipation of a timber famine, we cannot withhold assent from the general proposition that timber is being used in somewhat unnecessary quantities for purposes that might be better served by other materials which are more plentiful, have not to be imported, give greater durability, and are immune from the graver risks of fire and pestilence that attend all-timber construction.

Durability, it may be objected, is of little or no relevancy to the circumstances. But there is no telling how long the war may last, nor for how long after the war the huts may be required for the isolation of infectious cases that commonly have to be reckoned with as war's concomitant and aftermath. It is necessary, no doubt, to put up large numbers of huts, sheds, or shanties for purely temporary service, and even these could be more satisfactorily constructed with less waste of wood; but an important point that is in some danger of being ignored is that very many of the buildings which are required in the present emergency may profitably be built to survive the occasion.

Of course we are not indifferent to the fallacy involved in turning a building to uses for which it was not designed. We objected strongly, for instance, to the proposal to lodge London University in Somerset House, and we are rather distressed at the prospect, rendered probable by the war, of the University having to occupy indefinitely its present quarters in the Imperial Institute. The suggestion is, however, not that military hospitals, and the like, should be built with the dual object of serving one purpose now and another hereafter, but that they should be so designed and constructed, and occupy such positions, as to be capable of continuing the same or similar service under different conditions.

Many local authorities have been for some time faced with a pressing need for isolation hospitals. Military exigencies should present local requirements in a new aspect, and determine the burgesses to hesitate no longer. They should propose to the

Government a co-operative scheme which, meeting for the moment the temporary requirements of the War Office or the Admiralty, shall even in the reversion, provide local authorities with means of satisfying local needs.

Another strong argument for permanency is the consideration that the future peace footing of the country will be very different from what it is now. Nothing will resume exactly the *status quo ante bellum*. Without venturing upon prophecy, it may pretty safely be assumed that the war has shown the necessity for the maintenance of more extensive facilities for mobilisation. Our Territorial Army, having been vastly augmented, will require greatly increased accommodation to what sufficed in the apathetic days which now seem so far off. Consequently, it were a wise economy to build now for the realisation of the changed conditions. To cite the case of Germany in disproof of the saying that preparedness for war is the best guarantee of peace is to look at the question sectionally, seeing that our own apparent unpreparedness was apparently a direct incitement to Germany to take advantage of our situation. A flaming sword has driven us out of our Fools' Paradise, and, without coming under the spell of the detestable militarism which we intend to smother, we must continue to manifest our ability to smother whenever it shall again feel strong enough to lift its horrent head. Barracks, drill-halls, hospitals, and military huts are therefore not to be regarded as mere contingencies, but as permanent assets of a more robust régime. It is in this sense that they should be built.

Here, it is to be supposed, is an opportunity that the Architects' War Committee will not willingly let pass. It should not be difficult for a sub-committee comprising architects, town-planners, military engineers, a civil engineer, and an Ordnance Survey geologist, to plot out the United Kingdom with a view to meeting requirements in the matter of swift and efficient mobilisation of the greatly increased number of forces of which the forces must no doubt henceforth consist. Subsidiary to this scheme, but forming a necessary part of it, is the design of the various types of buildings destined for occasional or for constant occupation by the forces, and this is a problem that can be more satisfactorily solved in the light of present events than has been hitherto found possible. Moreover, since the war has already proved so potent for the co-ordination and cohesion of elements that have been until now thought incapable of efficient combination, there is, inferentially, the great probability of co-operation between architects, Government officials, and others, in work of such vital nature.



ance as that which until now has been done all usually and unsystematically. With only a narrow sea between us and the fate that has overtaken us, we have been forced to become, however against our will, a military nation, with the notion of developing to the fullest possible extent powers of defence and aggression.

very commendable in the Chancellor of the quer that he is evidently doing his best to the erroneous impression created by the loose logic upon which we have on several occasions acted. From the outset we have taken the view appearing to discourage municipal enterprise in the war the Chancellor, speaking at a moment we must have been overwhelmed and depressed by the burdens and responsibilities almost beyond human power, had no idea that his words were capable of a gloomy interpretation that was at once put upon the timid citizens, and was as promptly overruled by those who saw clearly enough that this interpretation was absolutely invalid unless the Chancellor was capable of advising one policy to-day and exact opposite to-morrow.

much stress cannot be laid on the Chancellor's repudiation of such a foolish policy. His idea—though possibly ill-expressed, it must be admitted—was to check extravagance in an hour of tight money, to check the forethought of municipalities in planning for unemployment." His considered view "if municipalities, looking ahead, could see that there was a prospect of unemployment in their district, it was their bounden duty to make arrangements to prevent its occurring, if, by any reasonable enterprise and sacrifice to the common interest, they could avert it; in order to enable them to do that, the Government were prepared to lend them the Government money." That, of course, is the only sane view of the matter. It is at once a caution against reckless extravagance and an incentive to steady endeavour. *Adio tutissimus.*

item of last week's agenda of the London County Council contains two points that surprise by their antagonism—the first being a daring revolt against the tape, the second a revulsion towards it. In the first instance, the Council, after deciding on the fact that certain works at the Stamford Hill dépôt should not proceed until Parliamentary authority had been obtained, have now determined to put the works on at once, without waiting for Parliament to pass the measure. For this irregularity we can have nothing to commendation: the Council has risen superior to the law. Then straightway it falls from grace by its action, in connection with the same dépôt, to reject the best two tenders because the firms submitting them had made stipulations dealing with the possible increase in the cost of labour and materials. Surely the Council must recognise the perfect fairness of such stipulations, and should have been glad of the opportunity to set an example of equity. Instead, they are setting an example to the contrary. Perhaps they are reluctantly, in accordance with some principle or precedent; but as they were daring enough to dispense with Parliamentary sanction, their scrupulosity in making an appearance of taking a mean advantage of the situation by virtually throwing all risk on the contractors is the more surprising. It is understood that the Council are considering war-risk clauses for their contracts. Even if these are retrospective, they do not affect the present decision by which tenders have been rejected because they contained stipulations for contingent prices; whence it would seem that the Council is consistent only in its inconsistency.

At popular art exhibitions they have an ingenuous way of deciding by popular vote which is the best picture in the show, the result being of much less value as a criticism of art than as an interesting revelation of the psychology of crowds. Aberdare Education Committee have applied this amusing method to the preliminary stages of an architectural competition. As we mentioned on p. 214 of our issue for September 23, they invited architects to tender their terms for planning and superintending the erection of a new school at Gadlys. We commented, at the time, that it is not customary for architects to tender for work; but the committee have nevertheless pursued their eccentric course, and they actually received forty-three "tenders"! Upon these they proceeded to vote by ballot! To give the farce the right Gilbertian flavour, only those candidates who secured proposers and seconders were admitted to the ballot, in which four brisk rounds were fought with great spirit. Eleven survived the first round, seven the second, three the third. The sole survivor of the fourth round should have been crowned with bays to the accompaniment of heroic airs on the harp or crwth, for he had come through what must have been a trying ordeal. We refrain from comment on proceedings of which the absurdity is sufficiently manifest.

A resolution of sympathy, which has been addressed by the Ancient Monuments Boards of England, Scotland, and Wales to the French Ambassador and the Belgian Minister and assumes the importance of an historical document, deserves all the prominence that can be given to it, and we have therefore no hesitation in printing it here. It is signed by Mr. Lionel Earle, Sir John Stirling Maxwell, and Sir E. Vincent Evans, Chairmen of the Ancient Monuments Boards of England, Scotland, and Wales, respectively, and is expressed in the following terms: "The Ancient Monuments Boards of England, Scotland, and Wales desire to record the horror and indignation with which they have received the news of the wanton destruction by the common enemy of the famous and beautiful monuments of your country, monuments which were justly the pride not only of their native land but of the whole civilised world. Such losses are, alas! irreparable, and must ever remain a bitter memory, the record of a chapter in the annals of mankind which will brand with indelible infamy the minds which conceived and the hands which carried out so idle an outrage against civilisation. But, although nothing can undo these excesses of a brutal and ruthless militarism, the occasion must at least evoke a demonstration of full and complete sympathy with the people on whom they have been inflicted, a people long and deservedly famous alike for the inestimable value of their historical monuments as for their deep appreciation of that value. We beg that Your Excellency will be good enough to convey to your Government this expression of our most profound sympathy." No words of ours could strengthen this dignified and not unduly severe protest.

#### OUR NEW OFFICES.

OUR new offices having now been completed for us at 27-29, Tothill Street, Westminster—almost opposite Caxton House—we are moving into them this week. The building is a large one of three storeys, dating from the eighteenth century, which has been entirely remodelled inside to accommodate our Editorial, Managerial, Counting-house, and Publishing Departments, this work having been carried out to the design and under the direction of Messrs. Richardson and Gill. In a future issue we propose to publish a description of it, accompanied by photographs, which will be of much interest to the profession.



## HERE AND THERE.

A RECENT note in these columns suggested that, if the German army were investing London, ready to bombard the place, it would be a thoughtful act for the civic authorities to send out a pair of maps to the enemy's commander, one showing the buildings which we desired to preserve, the other showing the buildings which, for the benefit of English architecture, might well be pounded to dust. Readers will since have noticed that this very proposal, or at least the first half of it, was acted upon in the case of Antwerp. The Burgomaster there sent out to the German commander a map of the city with all the chief architectural features marked, and this information was conveyed to the sectional batteries: with the result that no wanton bombardment occurred. Probably the Germans wish to show that, after all, they are a cultured people, and that the destruction of Reims Cathedral was an accident, or a military necessity. With those two comprehensive explanations always ready to hand, every conceivable act can be compassed. When one does not fit the case, the other certainly will. For instance, the dropping of bombs on Notre Dame cannot, by any stretch, be called an accident, so it must be a military necessity, in order that thereby the Parisians may know the truth, that the English are *perfidie*, and that the Germans are sweeping everything before them. And the same sort of reasoning will explain why the Zeppelins shall dash destruction upon the great buildings of our own metropolis. In passing I may note that the celebrated gargoyles of Notre Dame, the fearsome devils who peer over the city from the corners of the towers, are, as a writer in the "Daily Chronicle" reminds us, not mediæval fragments, but of our own generation, having been cut new under the direction of Viollet-le-Duc, as part of the complete restoration of the building which he undertook about fifty years ago. Further, Mr. Harry Hems, of Exeter carving fame, declares they are the work of an Englishman named Frampton—not of course the "Sir George" who is known so well among architects.

\* \* \* \*

Speculating thus on bombardment, the Cathedral of Paris, and Viollet-le-Duc—a strange trio—has led me to take up again those delightful lectures with which the French architect's name is as much connected as his restorations are. Viollet-le-Duc is, indeed, a writer whose pages are ever fascinating, whether or not we may agree with his estimate of architecture always in terms of construction. His chapter on military architecture is of especial interest at the present moment, when we have lately seen structures ten times as strong as those he describes shattered by melinite shells; and, incidentally, the chapter offers some information which serves to antedate by seven centuries the hustling methods of building which we thought were peculiar to our time. He says: "In the construction of churches there may be noticed interruptions, boggling, frequent modifications in the original projects, which are to be explained by lack of money, more or less flagging zeal of bishops, canons, or abbots, new ideas which crowded into the brains of those who ordered and paid for the work. But when a powerful seigneur wished to build a fortress he was not reduced to solicit gifts from his vassals, to kindle the zeal of the lukewarm, and to rely on time and his successors to complete what he had begun. He wanted his château in his own lifetime; his need was pressing, immediate. Richard Cœur-de-Lion stopped for nothing when he wished to build the fortress of Andelis, the Château Gaillard—neither usurpations, nor sacrifices, nor coercion nor money. He proceeded to build the stronghold in spite of the Archbishop of Rouen, although the City of Andelis belonged to the latter. Richard does not lose a day. He is on the spot overseeing and spurring on the

workmen; his fortress rises, and in a year it is and well done—the scarp and the moats finished in place in a complete state of defence, and one of the strongest in the North of France. So, too, Enguerrand III. when he built the Château de Breteuil, was in preparation for an approaching and a struggle with his suzerain, and a month of delay would frustrate his ambitious projects: hence even to-day it is evident that the enormous works carried out in order were prosecuted with a surprising rapidity that brooked no negligence. From the summit the same materials, the same mortar, the same workmen's marks, are there. The marks cut on the exposed faces by the stone-cutters were to enable the foreman to keep account of a man's work, and they prove that the work was paid by the piece, not by the job or by the day.)

Now each mark belonged to one particular workman, and Viollet-le-Duc having counted more than a hundred such marks proceeds to calculate on that basis. He works out that there must have been—draughtsmen, fitters, blacksmiths, 20; masons' labourers, 100; cranemen, setters, 100; graders, labourers, and masons, 200; and masons and helpers another 200, which must be added—quarrymen and lime-burners, 100; sand-diggers, 25; and teamsters and helpers, making a grand total of 800 men. And this is the basis for Viollet-le-Duc's proceeds: "Eight hundred workmen occupied entirely with masonry presuppose an equal number of carpenters, ironworkers, plasterers, tile-layers, cabinet-makers, and painters (for the inside work of the Château de Coucy was painted with fresh plaster). We must then admit that there were at least 1,600 workmen engaged in the construction of this fortress. If we examine the edifice, the unity of the conception in *ensemble* and detail, the uniformity of profiles, these all give proof of a precision of execution that rivals what we see done in the most perfect of our modern buildings. Such activity resulting in so perfect a structure is only by exception in religious constructions, as, for instance, in the façade of Notre Dame at Paris, or the substructure of Reims Cathedral, in the nave of Amiens Cathedral. But these are quite special cases, whereas in the fortresses of the Middle Ages, from the twelfth to the fifteenth centuries, with the traces of haste, there is always to be found an excellent execution of the conceived plans and carefully studied details."

From this the conclusion may be drawn, that to want a thing done well you must have a single direction, not many. Napoleon offers a good example of this, for it cannot be supposed that the great workman authorised and insisted upon would ever have been possible to a communal body. Whenever there is a committee there is compromise, and compromise is the beau idéal of achievement.

\* \* \* \*

To the paragraph about architects brought before the eye of the law as "suspect" which appeared last week, I may add another. An architectural student, immured in classical studies, went to Berlin years ago to see Schinkel on his native heath, having obtained official permission, began to make a very careful set of drawings of the Altes Museum, which is Schinkel's greatest building. In due course he measured up the whole, finished his drawings, and was on his way rejoicing—until he arrived at the frontier station. His formidable roll there aroused the suspicions of the officials, and, despite his explanation in quite good German, that he was no other than an architectural student who had been measuring an old museum in Berlin, he had to leave there and was detained in a room for a couple of hours. His drawings were examined in detail and all sorts of inquiries were made; with the result that when eventually he was released his train had departed, and his boat connection to England was lost.



## THE PLATES.

*Church of St. Jude, Hampstead Garden Suburb.*

The interior of this church is interesting alike for its architectural effect and as a modern essay in brick and timber construction. The brickwork is exposed in piers, arches, and, partly, in the ceiling, being elsewhere covered with a hard plaster. The plan of the church comprises a wide nave with aisles and shallow transepts leading out to an equal width, a Lady Chapel leading out of the north transept, and a vestry leading out of the south transept. The church is not complete at the present time. The west end is unfinished, while at the east end the high dorsal behind the altar is temporary only—but very effective nevertheless. Other views and drawings of the church have been given in past issues of this Journal—a plan showing the construction of the aisle roofs and piers in our issue for July 23, 1913, and a view of the exterior with details of the sanctuary gables in our issue for August 20, 1913.

*Late Georgian Houses, Kennington Road, London, S.E.*

These houses were probably built in the early years of the nineteenth century, when the example of Nash using smooth stucco for the outside elevations was widely followed throughout the country. The beautiful balconies to the first-floor windows are very typical of the period, and are of a pattern frequently found in the houses of the seaside towns, such as Margate and Margate, which at this time were beginning to be fashionable holiday resorts. As a group of town houses they are peculiarly interesting, resting, as they do in the freedom of their design, on the experiences of an urban population.

*Cumberland Gates, Hyde Park, London.*

This is the last of our series of plates of Cottingham's designs for ironwork. It is a characteristic piece of work, in the "good Roman manner," so far as concerns details as the fasces and spear-heads; the whole is tied together by diagonal bracing.

*Sanatorium, Great Barr Colony.*

The site consisted of an old French garden, and the sanatorium was designed around the existing lay-out, the villa house being utilised in the centre block. The building was erected on a concrete raft about 9 in. thick and consists of studding weather-boarded outside and metal-lathed and plastered inside, the floors of the

rooms being of maple laid on the concrete. The roof is covered with tiles of "Grecian" pattern, and the whole of the woodwork outside is treated with "Carbolineum." Electric light is installed, with hot-water heating. The architect was Mr. Gerald McMichael, A.R.I.B.A., of Birmingham. The general contractors were Messrs. Kendrick and Son, of Walsall. The total cost was about £1,100.

*Settee in the Grand Trianon, Versailles.*

This follows the same treatment as that adopted for the armchair illustrated last week, as witness the curved arm with its scroll head, the shape of the legs, and the ornamentation. The settee is upholstered in brocade, the woodwork, apparently, being finished in gesso, with gilt enrichments on a white ground.

*Additions to Normanby Park.*

This new wing added by Mr. Brierley is a vigorous piece of design, executed entirely in stone. It is in keeping with the older building, while being essentially modern in its treatment.

*Working Drawing of Woodwork in Connecticut House.*

Mr. Charles A. Platt being the most able domestic architect in the United States at the present time, it is of special interest to give this working drawing, which is one of the series that has appeared in "Architecture." Mr. Platt's work is distinguished by the combination of vigour and grace which it always displays. It is based on classical work of the past, yet is essentially modern, and on that account especially merits attention. As has been said, Mr. Platt uses the formal informally, and though most of the work is balanced and symmetrical, it is never hard, dry, or cold. Mr. Aymar Embury, a fellow architect, says: "When I began my own practice I rather thought that the English and our Colonial ancestors had about exhausted the possibilities of this particular variety of work and that the best we could do was to imitate their ideas as well as possible, with a certain necessary loss of charm similar to that which is lost by a book in translation. Mr. Platt has taken this time-worn, moth-eaten old style and given it a new lease of life, and a good many are finding that, after all, it is full of unexhausted possibilities. The only analogy to Mr. Platt's success lies, I think, in that of McKim, Mead, and White, who have taken the old cut-and-dried motifs, familiar from the days of the Greeks, and used by thousands of architectural students in every school competition in the world, and from them have produced real architecture."



NEW WING TO NORMANBY PARK, LINCOLNSHIRE. WALTER H. BRIERLEY, F.S.A., F.R.I.B.A., ARCHITECT.



## THE PUBLIC PARK COMPETITION, LIVERPOOL.

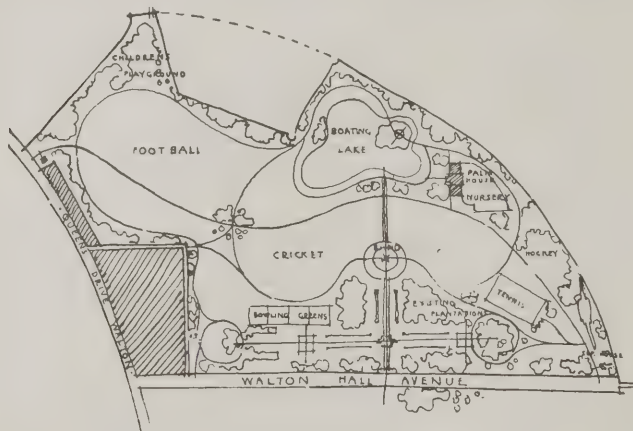
[SPECIAL CRITIQUE BY LIONEL B. BUDDEN, M.A., A.R.I.B.A.]

THE Parks and Gardens Committee of the Liverpool City Council invited "architects, surveyors, and landscape gardeners," to submit designs for the laying-out of the Walton Hall Estate as a public park and recreation ground, and appointed Mr. Henry Hartley as assessor. The area to be developed was  $130\frac{1}{2}$  acres in extent, about 70 acres of which were required to be used as a recreation ground for cricket, football, etc., and the remaining  $60\frac{1}{2}$  acres, with frontages to Walton Hall Avenue and Queen's Drive, to be treated as an ornamental park. Provision was to be made for a superintendent's house (two sitting-rooms and four bedrooms), a park-keeper's lodge (one sitting-room and three bedrooms), shelters, conveniences, band-stand, greenhouses, decorative and drinking fountains, tennis courts, and a boating lake covering an area of six acres (the cost of this last to be separately stated). It was particularly desired that all

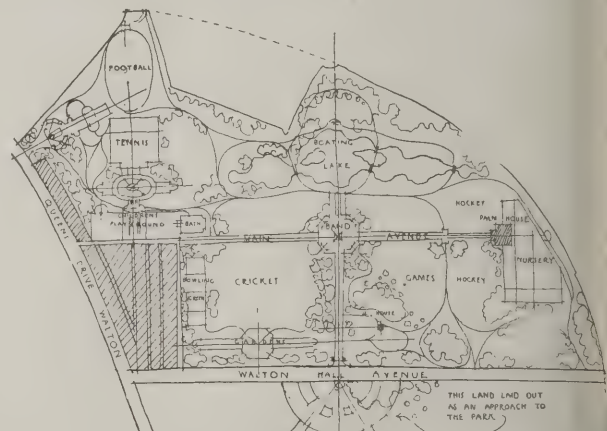
suitable trees and existing plantations fronting Walton Hall Avenue should be retained. The total sum of money to be expended was left to the judgment of each competitor. Premiums of 100, 50, and 25 guineas were offered for the designs placed respectively first, second and third, the author, or authors, of the winning scheme to be entrusted with the execution of the work.

The necessary drawings (to be submitted anonymously and accompanied by an explanatory statement) comprised a general plan to a scale of 100 ft. to an inch, together with a sketch, bird's-eye view of the same, and  $\frac{1}{8}$  in. scale drawings of all buildings required.

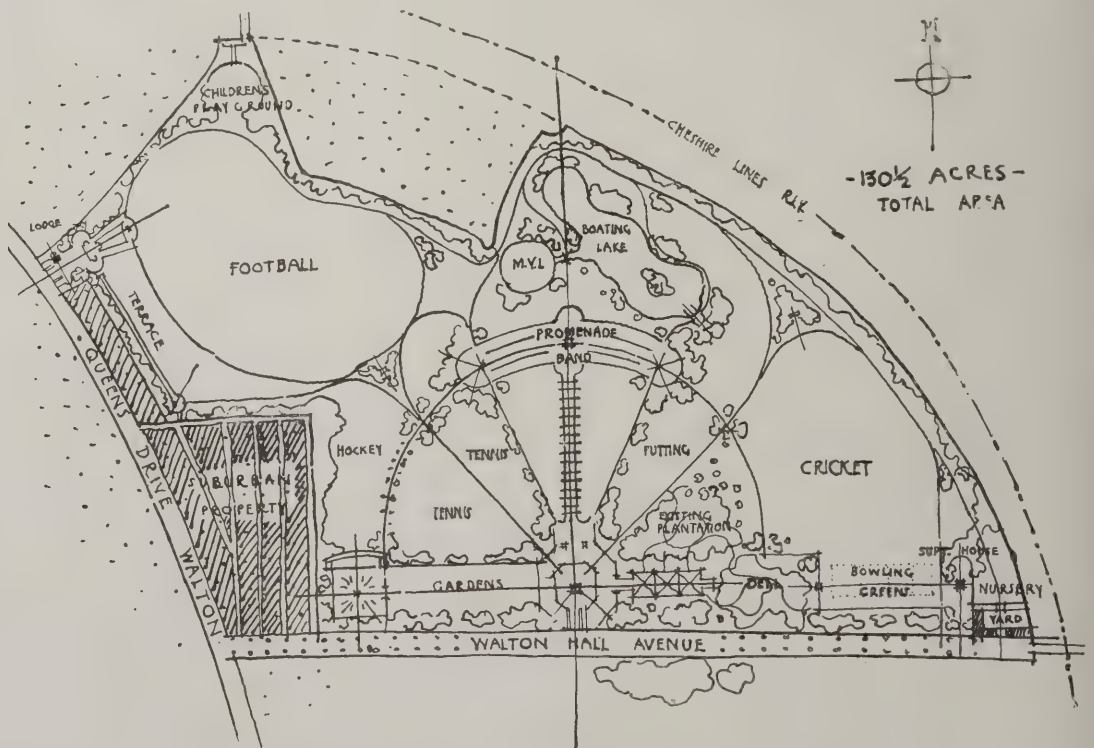
The first-premiated design is by Messrs. H. Chalton Bradshaw and G. H. Rowlands, of Wavertree, Liverpool. There cannot have been much difficulty in making this selection, for the scheme which is the joint production is in every vital respect superior



Second-Premiated Scheme. By Pierce, Walker, and Dolman.



Third-Premiated Scheme. By E. P. and J. R. Mawson.



First-Premiated Scheme. By H. Chalton Bradshaw and G. H. Rowlands.

PLAN FOR LAY-OUT OF WALTON HALL ESTATE, LIVERPOOL.



ther submitted. It provides a broad æsthetic element of the subject on a thoroughly practical and it contains valuable features not provided by competitors. From the architectural point of view its chief merit consists in the very skilful relation established between its formal and informal parts, and the manner in which advantage has been taken of the natural configuration of the land and of the positions of existing trees. Thus a terrace promenade is provided at the highest level, parallel to Queen's Road and near the north-east entrance. From this point a view over the whole park can be obtained. The main entrance on the Walton Hall Avenue is the result of three main and four subsidiary vistas. It is placed on an elevation overlooking the lakes and band-stand, approached by a broad avenue from the main entrance. Of the two lakes, the circular one is reserved for model yachts is at the higher level, so that the tide falls from it to the lower sheet of water. The provision of a separate model yacht lake is a feature peculiar to the plan of Messrs. Bradshaw and Rowlands.

Two practical points of great importance must have been taken into the authors' success. One is the position of the nursery and potting sheds, and the type of glasshouses provided. The former, together with the superintendent's house, are placed at the east corner of the estate on the Walton Hall Avenue, so that no cartage of bedding and raw material through the Park is necessary. With regard to the latter, Messrs. Bradshaw and Rowlands appear to have been the only competitors who realised that more glass-protection was required than would be for the maintenance of the beds in the Park. In nearly every other case, there figured on the plans palm-houses which would be a constant source of expense and whose upkeep would absorb any profit which might be derived from the leasing of the football and cricket grounds to local clubs. Another virtue

of the selected scheme, one which it shares with the second-premiated design, is the placing of the children's playground at the extreme north-west corner of the Park. There, by means of a subway, it is in direct communication with a populous neighbourhood, and is at the same time well removed from the lakes, tennis grounds and formal portions of the estate.

The architecture of the Park buildings, a kind of rustic Classic, is excellent. Three drawings suffice to present the entire scheme, and they are easily the most competent and artistic submitted. £40,000 is the estimated cost of executing the work.

The second premium was won by Messrs. Pierce, Walker, and Dolman, of Windermere who submitted a set of five drawings. Theirs is a park-like conception, involving the naturalistic treatment of a large area. It is a practicable scheme approximating to the degree of development actually required on the site. The "by-law" suburban property encroaching on the south-west portion of the Park is screened by trees, and ample space is given to cricket and football grounds. Some serious faults, however, are to be found. Chief amongst them are the provision of an unnecessary palm-house, the inconvenient situation of the nursery, and the character of the buildings, which do not commend themselves in the least.

A much more accomplished scheme is that for which the third premium was awarded, the work of Messrs. E. P. and J. R. Mawson, of Lancaster. Unfortunately it is too highly elaborated, and represents a degree of intensive development much above that required. In addition to a conservatory it provides a public bath (though such an institution already exists close at hand). The football ground is too small ever to prove an adequate source of revenue. An existing main sewer is disregarded, being covered by the lake, whilst the broken form of the latter is such as to render it unsatisfactory for boating. What seems to be a most



BIRD'S-EYE VIEW OF FIRST-PREMIATED DESIGN. BY H. CHALTON BRADSHAW AND G. H. ROWLANDS.



attractive feature of the plan is the main avenue parallel to the Walton Hall Avenue. Yet this is in reality its weakest point, for the western extremity of the avenue passes through and emphasises the existence of an area of suburban buildings that had much better have been disregarded, and if possible concealed. The entire conception has been most thoroughly worked out, almost too thoroughly for the competition stage. No fewer than ten large drawings are required to set forth the whole, which, with a view to providing radial approaches to the main entrance, includes a town-planning scheme to the south of the Walton Hall Avenue.

None of the remaining schemes calls for special comment. Many disregard the conditions of the site and place the lake at the highest level. Every variety of treatment, between and including the two extremes of over- and under-development, is to be seen. Some of the drawings are of a kind we have never before encountered, amazingly coloured, with incredible architecture, incredibly presented, and annotated with such cryptic legends as "Scale as usual."

## CORRESPONDENCE.

*Prevention of Unemployment Among Architects.*  
To the Editors of THE ARCHITECTS' AND BUILDERS' JOURNAL.

SIRS,—A fund has been started for providing work for architects whose means of livelihood are practically stopped by the war. The administration of this fund is in the hands of the Professional Employment Sub-Committee of the Architects' War Committee, which is occupied first in ascertaining those architects in actual need of employment in consequence of the war, secondly in evolving schemes of a useful nature by which these architects may be temporarily employed, and thirdly in appealing for financial support from the architectural profession.

1. Architects in actual need of employment in consequence of the war are invited to submit their cases to the honorary secretary, at 28, Bedford Square, W.C. These cases will be considered by a sub-committee in strict confidence.

2. Suggestions are invited for schemes of a useful nature by which architects may be temporarily employed. For instance, small fees might be offered for measured drawings of buildings of architectural and historical interest, or for civic survey work.

It is thought that the various architectural and other societies throughout the country would be glad to co-operate in giving effect to these proposals.

3. The War Committee have already issued an appeal for funds, and it is hoped that this appeal will meet with a liberal response. The proportion of this fund available for the purpose of providing work can only be regarded as a nucleus, and a generous support should be forthcoming from all who realise that the present opportunity is an exceptional one for undertaking the work proposed. The main object of the sub-committee is not to distribute benevolent aid, but to provide architects with temporary work of such a character that at the termination of the war their work would be of a distinct value to the community.

ERNEST RICHMOND.

28, Bedford Square, W.C. Hon. Secretary.

*Artists' General Benevolent Institution.*  
To the Editors of THE ARCHITECTS' AND BUILDERS' JOURNAL.

SIRS,—We, the undersigned portrait painters desirous of helping artists and their families at this time, propose the following scheme for adding to the funds of the

Artists' General Benevolent Institution:—Any member of the public may, by the payment of fifty guineas to the secretary of the Artists' General Benevolent Institution, receive a voucher which will entitle the holder to commission a portrait of any soldier, sailor, doctor, nurse who has served, or is serving, the King in the War, to be painted by any of the undersigned artists, and we agree each to paint two such portraits on canvases not to exceed in size 24 by 20 inches.

Application for vouchers accompanied by cheques should be addressed to The Secretary, Artists' General Benevolent Institution, 3, Charles Street, St. James's Square, S.W. Vouchers will remain valid for at least six months after the end of the War.

Purchasers are requested, in selecting a painter, to send in a numbered list of the names in order of preference, as in the event of more than two applications being made for the same artist a ballot will be taken. Should the purchaser of a voucher still fail in the choice of a painter, a second list may be sent or he may return the fifty guineas returned.

A. AIRY  
GEORGE BELL  
PILADE BERTIERI  
PERCY BIGLAND  
OSWALD BIRLEY  
JOHN BOWIE  
H. HARRIS BROWN  
F. C. B. CADELL  
FRANK CALDERON  
FRANK W. CARTER  
GEORGE CLAUSEN  
JOHN COLLIER  
PHILIP CONNARD  
A. S. COPE  
JOHN DA COSTA  
F. CADOGAN COWPER  
JOHN CREALOCK  
FRANK DICKSEE  
SHOLTO J. DOUGLAS  
LUKE FILDES  
S. MELTON FISHER  
STANHOPE A. FORBES  
ERIC GEORGE  
LOUIS GINNETT  
HUGH DE T. GLAZEBROOK  
J. E. VON GLEHN  
W. G. VON GLEHN  
T. C. GOTCH  
RONALD GRAY  
M. GREIFFENHAGEN  
ARTHUR HACKER

HARRIET HALHEID  
J. MCLURE HAMILTON  
GEORGE HARCOURT  
ALFRED HAYWARD  
KEITH HENDERSON  
J. YOUNG HUNTER  
RICHARD JACK  
AUGUSTUS JOHN  
LOUISE JOPLING  
GERALD F. KELLY  
T. B. KENNINGTON  
G. W. LAMBERT  
J. ST. HELIER LANDER  
PHILIP A. DE LASZLO  
JOHN LAVERY  
FLORA LION  
WILLIAM LLEWELLYN  
W. LOGSDAIL  
J. LONGSTAFF  
MOUAT LOUDAN  
L. D. LUARD  
SEYMOUR LUCAS  
HARRINGTON MANN  
J. COUTTS MICHIE  
MARK MILBANKE  
GERALD MOIRA  
WALDO MURRAY  
G. HALL NEALE  
WILLIAM NICHOLSON  
GABRIEL NICOLET  
A. T. NOWELL

DERMOT O'BRIEN  
HERBERT OLIVIER  
WILLIAM ORPEN  
CATHERINE OULIE  
WALTER W. OULIE  
ALFRED PRAGA  
W. B. E. RANKIN  
W. B. RICHMOND  
HUGH G. RIVIER  
T. MARTINE RONALD  
WALTER RUSSELL  
FRANK O. SALISBURY  
MARK SENIOR  
CHARLES SHANNON  
J. J. SHANNON  
WALTER SICKERT  
CHARLES SIMS  
F. M. SKIPWORTH  
S. J. SOLOMON  
HAROLD SPEED  
WILLIAM STRANG  
W. R. SYMONDS  
A. CHEVALLIER  
C. L. COLYN THOMAS  
EDWIN A. WARD  
G. FIDDES WATTS  
G. SPENCER WATTS  
DANIEL WEHRSCHEIDT  
GUY WILTHEW  
T. BLAKE WIRGMA

## BUILDERS' SUPPLIES FROM GERMANY AND AUSTRIA.

GERMANY'S total exports of Portland, Roman, and hydraulic cements (tufa, trass, puzzolana and puzzolana sand, etc.) amounted, in 1913, to the latest date for which authentic figures are available—to £1,723,900, whereas in 1913 the British exports of cement for building and engineering purposes reached the total of £1,273,100. Germany's chief markets were, for Portland, Roman, and hydraulic cements—Brazil, £281,300; Netherlands, £249,700; Chile, £142,300; Australia, £133,800; Russia, £111,700. France, Turkey, the Dutch Indies, and Argentina took German cement to the value of between fifty thousand and sixty thousand sterling. Norway, Belgium, Portuguese East Africa, Uruguay, and the United States are represented by quantities ranging from twenty thousand to thirty-one thousand cwt. Sweden, Denmark, Spain, and Mexico vary between ten thousand and seventeen thousand, and the other countries fail to reach double figures of thousands, although the Netherlands, Portugal, the United States, and Mexico approach more or less closely to the thousand pounds' worth. Austrian exports of cement were insignificant, amounting in the aggregate to more than £215,900 to all markets. The United Kingdom holds a very strong position in British India, Ceylon, British South and West Africa, Egypt, Argentina, while we do a fair trade with Spain, Germany, on the other hand, had a long lead in Australia, Netherlands, Brazil, and Chile, and a large part of the trade in the less important South American markets. Germany supplied the bulk of



## A RECORD OF BRUGES.\*

it required in Western Europe, while Austria required that required in Russia, South-Eastern Europe, Turkey, and the Levant.

Cast-iron goods (stoves, baths, etc.), the German exports amounted to £2,208,300 in the last year (1912) the highest figures are available; £1,578,100 of this relating to cooking utensils, baths, lamps, and iron wares, exclusive of cooking stoves, ovens, and of ovens, etc., and boilers for central heating. Germany's principal markets were the following, the figures representing pounds sterling: United Kingdom, £1,133,350; Netherlands, 185,750; Belgium, 164,400; Switzerland, 184,100; Italy, 135,400; France, 162,350; Dutch East Indies, 87,650; Argentina, 80,450; Brazil, 74,700. Trade above ten years and a year was also done with British India, Persia, Norway, Sweden, Denmark, Netherlands, Bulgaria, Roumania, Turkey, China, Japan, the Philippine Islands, Chile, Mexico, and the United States. Austrian exports of these goods amounted to about £30,000.

Germany's exports of stoneware, earthenware, and glassware do not greatly concern us, as they consist largely of crockery, table-services, etc. The one item of immediate interest is that relating to porcelain. Exports of all kinds, including insulator bells, the total being £240,000; but it may be noted that German porcelain wares, white, amounted to £142,000, and porcelain ornamental receptacles, figures, and articles of luxury to £524,000. Austria-Hungary exported in 1913 fittings for insulation and mounting of electro-technical purposes, not in combination with other materials, to the amount of £161,000; but it is to be noted that the particulars given are exclusive of all imitations of tiles and of sanitary, electrical, and chemical ware. The United States was by far Germany's best customer at £723,500, the United Kingdom coming next with £365,000. These were also Austria's best customers, with £95,100 and £129,000 respectively.

Turning to painters' colours and materials, including oil, we find these values for exports: From Germany, £3,162,000; from Austria-Hungary, £1,500; from the United Kingdom, £3,286,300. Of these white Germany exported to all destinations £1,500; zinc grey, £113,000; white lead, £256,500; zinc metal colours, £316,000; iron oxide, including white ochre, £72,500; umber, sienna earth, etc., £3,500; lithopone, £166,000; barytes, £208,000; Prussian blue, chrome green, £115,000; chrome colours, £102,000; red lead, £196,500; copper colours and other pigments, £151,000; prepared colours not specified, £259,000; varnishes and oils, £247,000. These materials we imported from Germany in 1912 to the value of £791,000 and from Austria in 1913 £11,450. The detailed list of materials, their values, and the destinations to which they were exported is too long to quote here.

A general summary of our exports to and imports from Germany and Austria was given in our issue of September 7, and in the issue for October 14 were given leading data with respect to iron or steel bars and pipes; building and furniture fittings, including smiths' wares; and fireproof bricks, etc. The value of Germany's exports in those articles we estimated roughly at about ten millions sterling. Adding to this the totals given above, it will be seen that the yearly value of the exports of builders' supplies by Germany to Austria reached a grand aggregate not far short of nineteen millions sterling, a volume of trade that is hardly worth the most strenuous enterprise of our country's merchants and manufacturers to capture. Mainly they cannot hope to capture it all; but, by prompt and energetic action, by accommodating their goods to the markets that are open to them, and by adopting every available means of publicity, they may fairly aspire to the lion's share.

MRS. ARTHUR STRATTON has done well to publish so opportunely her impressions of a city that, at the moment in the hands of the Huns, will be fortunate to escape the fate of Louvain and Reims; and as one turns the pages of her delightful book it is difficult to repress a feeling that the word "record" which she has incorporated in its title may ere long convey an ominous significance that the author could hardly have anticipated for it. But whether Bruges is spared or destroyed, the book will be cherished as much for its intrinsic as for its topical value.

Full justice is, of course, done to the famous belfry, which is inseparable in thought from the mere mention of Bruges. It was in 1291 that the foundations of the existing belfry were laid, but the superstructure is of many stages and various dates. "The wings of the façade—formerly the Halles—were added in 1364, and between the years 1483 and 1487 the square tower, then at a height of two storeys, was carried higher by the addition of an octagonal lantern with flanking turrets crowning the lower stage. A year later a *flèche* some 45 ft. high, of graceful outline, was erected, with a statue of St. Michael at the summit." The *flèche* was destroyed by lightning in 1493, and a metal vane in the form of the Lion of Flanders set up in its place in 1502 was burnt in 1571, and no attempt was made to restore the feature. The parapet to the lantern and the eight angle pinnacles rising above it were added in 1822. One of the most interesting of the buildings in the Grand Place facing the belfry is the *Hôtel Bouchoute*, which is of brick, and was built about 1480, the sundial and weather-vane having been added, probably, in 1682.

Mrs. Stratton's impressions of Bruges are not the less delightful for the clear and simple style in which they are conveyed, and Mr. Charles Wade's round hundred of illustrations have an architectural as well as a pictorial value.

So also, indeed, has the text. For Mrs. Stratton, being the wife of an architect, has sufficient knowledge of architecture to know exactly at what points to seek professional guidance; and in fact Mr. Arthur Stratton, F.R.I.B.A., contributes an entire chapter dealing both learnedly and luminously with the domestic architecture of the quaintly beautiful mediæval city, whose countless gables and winding streets have exercised an extraordinary fascination over innumerable artists and poets, and have prompted the production of hundreds of magazine articles, and of very many much worse books than this.

For the author has not written it in a hurry. That it chanced to be timely and topical is a mere accident. She has long known and loved Bruges, and had this work in hand some considerable time before the war came to invest the subject with a special interest without which the book must still have been successful as being, on the whole, the most satisfactory account of Bruges that we have yet seen, free alike from the dull perfunctoriness of the ordinary guide-book, from the crude commonplaces of the tourist's small talk, and from the high-pitched eulogy of the enthusiastic amateur. Mrs. Stratton, in fact, is a skilful and an accomplished writer, knowing well the value of simplicity, restraint, and proportion.

Her ability to handle her rich materials is obvious in the very first chapter, in which, with a true instinct for relevancy and due measure, she picks out the right things to say about the history of the city, and in her chapter on the streets and quays attention is drawn to a wealth of interest—mainly architectural or pictorial—that ordinary observers are apt to overlook.

\* "Bruges: A Record and an Impression." By Mary Stratton. Illustrated by Charles Wade. Pages xiv. + 164, 6½ ins. by 9 ins., price 5s. net. London: B. T. Batsford, Ltd., 94, High Holborn, W.C.



## ENQUIRIES ANSWERED.

### *Fellowship of the Society of Antiquaries.*

J. E. W. (Newton Abbot) writes: "I should be pleased if you could supply me with the necessary particulars as to how to become a Fellow of the Society of Antiquaries."

—Particulars should be obtained from the Secretary, Society of Antiquaries, Burlington House, London, W.

### *Black and White Perspectives.*

D. writes: "I should be glad to know the name of the ink (black) used by perspective experts, also the name of the ink or colour (black) they use in making black-and-white wash drawings."

—Lampblack, in cake or in tube, is commonly used for black-and-white perspectives. It can be obtained from any artist's colourman. Higgins's is a good ink.

### *Books on Steelwork and Reinforced Concrete.*

E. F. F. (Forest Gate) writes: "Please give the titles and authors of some good books on designing and calculating steelwork in buildings—girders, stanchions, etc.: those not requiring very advanced mathematics would be preferred. Also an elementary book on reinforced concrete construction."

—Books on structural design are rather numerous, and the most satisfactory course would be for the querist to consult the publishers' catalogues and make his own selection. Any of the following publications, which are recent, would probably answer his purpose very well—namely: "The Mechanics of Building Construction," by Henry Adams (Longmans, Green and Co., 39, Paternoster Row, E.C.; price 6s. net); "The Principles of Structural Mechanics," by Percy J. Waldram (B. T. Batsford, 94, High Holborn, W.C.; 7s. 6d. net); "Elements of Structural Design," by Horace R. Thayer (Constable and Co., Ltd., 6s. net)—a work of American origin. There is some excellent information on the subject in "Specification," No. 15 (Technical Journals, Ltd., 27-29, Tothill Street, Westminster, S.W., 3s. 6d.)

### *Wind Pressure.*

ÆOLUS (Bradford) writes: "I understand that the subject of wind pressure has received a good deal of attention within recent years, and I should be glad if you could inform me where the most up-to-date conclusions are recorded."

—In Mr. Percy J. Waldram's "Principles of Structural Mechanics" (B. T. Batsford), a chapter is devoted to wind pressure, and in this the subject is discussed in the light of up-to-date knowledge and experiment. The Proceedings of the Institute of Civil Engineers should also be consulted, particularly Vol. CLXXI., in which the results of careful and exhaustive experiment at the National Physical Laboratory as to the relation between wind velocity and pressure are recorded. With regard to roofs, Mr. Waldram observes that natural wind pressure does not exert its maximum force over all portions of a large roof at the same time, and suggests that, at least for buildings in ordinary situations, a rule deduced from the Forth Bridge records is sufficient—namely, to assume a steady wind pressure of 30 lb. per sq. ft. on any area of 200 sq. ft. and under, and to reduce this by 1 lb. per sq. ft. for every 100 sq. ft. in

excess of 300 to a minimum of 20 lb. per sq. ft. The principle of a 30 lb. wind is accepted in the L.C.C. General Powers Act, 1909, Part IV., and is in accordance with the building laws of large Continental and American cities.

### *Neutralising the Smell of Fresh Paint.*

O. N. (Streatham, S.W.) writes: "Clients (especially ladies) commonly object to the smell of fresh paint, and for this reason are apt to defer or to shirk painting operations. If this annoyance could be obviated much more work would be done. Is there any means of preventing or mitigating the nuisance?"

—Modern paints, being composed of less rank materials than those of former times, are comparatively free from objectionable smell. In fact, we have met people who profess to find the odour refreshing, but in such cases the basis of the paint has been zinc oxide, which certainly exhales a more delicate smell than paint made from white lead. Many expedients have been adopted to neutralise the smell of lead paint, but, never having thought it worth while to use them, we are unable to say whether or not they are as efficacious as their advocates claim them to be. These are—placing several pails of water in the room with the object of absorbing the lead fumes; milk, with its well-known greater power of absorbing atmospheric impurities, being still more likely to serve the purpose. Juniper berries, or hay steeped in water have been also tried, but one suspects that they merely disguise the smell and are chiefly valuable for their moral effect. But by employing none but zinc paints for interiors, the consequent assurance that the smell of fresh paint is entirely harmless removes the chief ground of objection to it.

### *Sources of Supply of Asphalt.*

M. B. T. (Bristol) writes: "A good deal of uncertainty seems to exist as to the sources of supply of asphalt and bitumen. It has been said that we were largely, if not wholly, dependent on Germany for the supply. Is this true?"

—Not at all. Rock asphalt is very widely dispersed, and the most important deposits are found in America. The oldest and best-known source is the island of Trinidad, in the West Indies, where the "lakes" of bitumen seem to be almost inexhaustible. The querist seems to have forgotten the famous Val de Travers and Seyssel deposits, in Switzerland. There are also immense deposits in France, Spain, and Italy; and Mr. Arthur Danby, in his book on "Natural Rock Asphalts and Bitumens" (Constable and Co., Ltd.; 8s. 6d. net), concludes a careful review of resources with the observation that the Old World is fairly well supplied with this particular material in some form or other, so that there need be little fear that the ever-extending use of it will result in a shortage of supplies, at all events, for some centuries yet.

### *Who Invented the Circular Saw?*

Following upon a description of joiners' tools which appeared recently in the "Journal of the Society of Estate Clerks of Works," Mr. Kerner-Greenwood affirms in the October issue that the circular saw was invented and first worked at Mansfield. It appears to have been invented by James Murray, a workman in the employ of a Mr. Brown, who had a water-mill in the town, driven from the river Mann. A patent for the invention was taken out by Brown some time before 1820.

## LEGAL.

### *The Housing and Town-planning Important Decision as to the Power of the Local Government Board.*

#### *Lancaster v. The Mayor of Burnley.*

October 14. King's Bench Division. Before Mr. Justice Coleridge, Horridge and Shearman.

This was a special case stated by the Local Government Board, under the Housing and Town Planning, etc., Act, 1909, and in the matter of John F. Lancaster and The Mayor, etc., of Burnley. It appeared that Mr. John Fielding Lancaster appealed against an order made by the Corporation of Burnley for the demolition of six houses in Engine Court, Burnley, on the ground that they were unfit for human habitation.

Mr. Brook Little, for the appellant, stated that the order for the demolition was served on August 7 last year, after the appellant had unsuccessfully appealed against the order, closing orders having been previously made.

His client purchased the houses in December, 1912, to convert them into warehouses, and by the following April had so dismantled them that they could not be used as dwelling-houses. The grounds of his appeal were that there was no intention by the appellant to use the houses for human habitation, that they were not a nuisance or danger to the public, and that the action of the corporation was oppressive. He contended that the corporation had no power to make demolition orders unless the premises were being used as dwelling-houses at the time the orders were made.

Mr. Branson represented the Local Government Board, and said they had stated the case for the opinion of the court under Section 39 of the Act. It was the first case of its kind stated under the Act, and it was therefore important. The Board sought the opinion of the court upon the question of law in order to enable it to decide the appeal before it.

Mr. Turner, for the Corporation of Burnley, submitted that Section 39 of the Act only gave the Local Government Board power to make orders such as were given to local authorities, and that if it was contended that the Board could quash a demolition order that was tantamount to giving them power to repeal the statute.

Mr. Justice Coleridge, in giving judgment, said the case raised an important question under the Housing and Town Planning Act in relation to closing demolition orders. An appeal was made to the Local Government Board, and the Court was asked what was the proper exercise of their jurisdiction under Section 39 of the Act. That section, it seemed to the court, gave very wide powers to the Board to rescind demolition orders on any reasonable ground. It seemed to the court such a case as the present one if they were satisfied that the houses were no longer to be used for habitation. The policy of the Act was to give the Board the widest possible discretion to do what was equitable and to confirm, vary, or quash orders made by the local authorities. That answered the questions raised.

Mr. Justice Horridge said, in his opinion, the local authority was bound to make a demolition order, even though after the date of the closing order the owner gave notice that the premises were not to be used for human habitation. He agreed that the Board had the power to vary, quash, or confirm orders made by the local authorities.

Mr. Justice Shearman agreed.



## BELL-HANGING AND THE LITY OF BELL TOWERS.

Bell Towers and Bell-hanging: An to Architects," by Sir Arthur Heywood, Bart., M.A., which appeared in our issue for July 29, p. 26, has supported the contention that, to have a ring of bells that will keep in ringing order, the old-time timber frame must be discarded for an iron frame, with its unceasing expansion and contraction, warping and twisting, and decay, must be superseded by a steel frame for all parts except such as are stays requiring to be specially treated. In fact, the installation of a peal of bells should be in effect a thoroughly well-planned and equally well-executed piece of machinery. Architects, it is declared, must yet completely converted to this view; hence Sir Arthur Heywood's appeal to the profession.

Seeing at Messrs. Warner's almost every stage of bell-founding, from the design to the casting, an orderly progression of operations that are co-ordinated and systematised in every detail. And no wonder; for the firm have inherited a great tradition, its present proprietors being lineally descended from that fine old founder who is still affectionately referred to as "Old John Warner," who started his foundry in Fleet Street in 1780, the year of the Gordon Riots. Mr. Walters, the foremost historian of the craft, says of them: "They have had a great reputation, especially in Essex, Yorkshire, and the southern counties, and their work is fully equal to that of the other great firms" ("Church Bells of England," p. 219). But the firm's reputation has now extended beyond the seas, and in particular they are doing much work for Canada. Into the mysteries of core, and cope, and casting, we will not enter here. No doubt any architect genuinely interested in the subject will be shown round the foundry with the same genial courtesy that made our representative's visit exceedingly pleasant. He will see there, besides the steam-hammer that shapes the glowing steel into clappers, the machines that saw through steel rods as if they were bits of broomstick, or punch holes through steel webbing as if it were brown paper, the very latest furnaces for melting the bell-metal, and the firm's extraordinarily efficient frictionless headstock. Above all, he will see the newest design in bell-frames.

Our special reason for visiting this particular firm was that they have recently completed and perfected a system of bell-hanging that, as far as could be judged by close personal examination, and from very lucid explanations of a member of the firm, not only fulfils the cardinal requirements of ease and effectiveness in ringing, but also solves the harassing problem of stresses in belfries. To put it in a single sentence, it is evident that a bell-frame may be so constructed and fitted as, on the one hand, to destroy and ultimately destroy the tower, and on the other hand, to strengthen and preserve it. Messrs. Warner's new bell-frame actually strengthen the tower in which they are fixed, becoming, as it were, part of its mass; the "cage" being, in effect, a steelwork bracing or reinforcement to the masonry, ensuring new towers from deterioration, and giving old ones a lease of life. For the moment, we are at liberty to give a detailed description of this new system of framing, and to say that, from what we saw of it, the system is one which secures extreme ease of ringing, the fullest effects of the ringing peal, and the permanent stability of the belfry. At the same time we may say that this new frame is of unique construction, and must on no account be confused with existing frames of the "H" type, which are tied to the walls of the tower both above and below the bells. It is altogether a notable achievement, which cannot fail to be substantially to the firm's high reputation as bell-founders.

By a notable bell one saw at Messrs. Warner's foundry; for, besides casting bells, the firm are much occupied in repairing old ones, and it was extremely interesting to see bells of the seventeenth and eighteenth centuries undergoing treatment for the ailments they had contracted in long years of change-ringing, in doubtless they had signalled many a victory by land and sea, and had rung in a new year, and sounded alas! many a funeral peal.

Our representative had the pleasure of

seeing at Messrs. Warner's almost every stage of bell-founding, from the design to the casting, an orderly progression of operations that are co-ordinated and systematised in every detail. And no wonder; for the firm have inherited a great tradition, its present proprietors being lineally descended from that fine old founder who is still affectionately referred to as "Old John Warner," who started his foundry in Fleet Street in 1780, the year of the Gordon Riots. Mr. Walters, the foremost historian of the craft, says of them: "They have had a great reputation, especially in Essex, Yorkshire, and the southern counties, and their work is fully equal to that of the other great firms" ("Church Bells of England," p. 219). But the firm's reputation has now extended beyond the seas, and in particular they are doing much work for Canada. Into the mysteries of core, and cope, and casting, we will not enter here. No doubt any architect genuinely interested in the subject will be shown round the foundry with the same genial courtesy that made our representative's visit exceedingly pleasant. He will see there, besides the steam-hammer that shapes the glowing steel into clappers, the machines that saw through steel rods as if they were bits of broomstick, or punch holes through steel webbing as if it were brown paper, the very latest furnaces for melting the bell-metal, and the firm's extraordinarily efficient frictionless headstock. Above all, he will see the newest design in bell-frames.

## NEWS ITEMS.

### *Architectural Association.*

The opening meeting of the session will be held on Monday next, October 26th, when Professor Selwyn Image, M.A., will read a paper on "Art and the War."

### *New Sanatorium, Marple.*

Salford Corporation have appointed Messrs. Sankey and Cubbon, 42, John Dalton Street, Manchester, the architects for the erection of the proposed tuberculosis sanatorium at Nab Top, Marple.

### *Town Planning Scheme for Surbiton.*

The Local Government Board have given authority to the Urban District Council of Surbiton to prepare a town-planning scheme, in respect of an area of about 1,553 acres.

### *Historical Houses.*

The London County Council have recently erected commemorative tablets on No. 36, Craven Street, the residence of Benjamin Franklin, and on No. 4, Adelphi Terrace, the residence of the brothers Adam.

### *German Building Trade Workmen at the Front.*

The German Socialist paper "Vorwaerts" states that 12,000 workmen belonging to the building industry are among the German troops at the front.

### *Moving Stairways at Baker Street Station.*

The new moving stairways between the Metropolitan and Bakerloo Railways at Baker Street Station were put into operation last week. The stairs run at a speed of 90 ft. per minute and have a capacity of 12,000 passengers an hour. Two minutes will be saved by their use.

### *Wrexham Church Extension.*

The famous church of Wrexham has been reopened after important additions and alterations to the chancel had been

carried out from the designs of Sir T. G. Jackson, R.A. The new work includes a reredos in white English alabaster. The sanctuary and the chancel have been paved with black and white marble and the steps are in black marble. The windows of the apse have been filled with glass by Messrs. James Powell and Sons.

### *British Fire Prevention Committee and the War.*

The British Fire Prevention Committee is still short of fire surveyors (architects, surveyors, or insurance officers) for occasional fire survey in the South of England, Home Counties, and East Coast, and will be glad to receive applications at 8, Waterloo Place, London, S.W.

### *Hospital Enlargement, Leicester.*

The Leicester Guardians at their last meeting decided to spend £20,000 in enlarging the North Evington Infirmary. The extensions will include new storeys for nurses and servants, a hospital block for one hundred children and ten nurses, a connected corridor, a recreation room to seat 200, and both operating and clinical rooms.

### *New Picture House at Bradford.*

The Regent Picture House and Winter Garden, Manningham Lane, Bradford, was opened recently by the Lord Mayor (Alderman John Arnold).

The auditorium is 106 ft. in length, and has an average width of over 60 ft., with seating accommodation for nearly a thousand people. The stage is of unusual size, having a proscenium 26 ft. wide and 30 ft. deep, adapted for performances of any kind. The grand circle has accommodation for nearly 500 persons; it is reached through the Winter Gardens, which are an innovation in Bradford. The architect was Mr. H. W. Rogerson, M.S.A., of Bradford.

### *Bath Stone Firms.*

Despite the building trade troubles in London, the net profit of the Bath and Portland Stone firms for the first half of this year is only a few hundreds lower at £5,800, so that the dividend of five per cent. per annum is maintained. The amount carried forward has been increased from £1,600 to £3,900. The directors point out that the building trade is likely to be seriously interfered with for a time, owing to the European war and the consequent financial disturbance, but they feel there is need for money to be circulated as freely as possible, and that the shareholders will approve of their action in not withholding the payment of a dividend at the present juncture.

### *Labour Exchange Memorandum.*

We are officially informed that the Board of Trade have now opened departments for uninsured workmen and women at 99a and 101, Horseferry Road, Westminster, in addition to the juvenile department already in existence, and a register is kept of men, women, boys, and girls seeking employment, each applicant being specially registered according to his or her occupation. Employers of labour are invited to inform the Exchange by postcard, letter, telephone, or personal call, of all vacancies which they desire to fill. In the selection of applicants for vacancies regard is paid only to their industrial efficiency. Should there be no suitable applicants on the local Exchange register the vacancy is at once communicated to neighbouring Exchanges, and if necessary circulated to every Labour Exchange in the United Kingdom. The experience already gained in other districts goes far to show that, if



full advantage is taken of the facilities offered by the Exchange, it will prove of the greatest service, both to employers and workpeople in the district. There are no fees.

#### *A New London Sessions House.*

After a delay of more than eighteen months, caused partly by the dispute in the building trade, a commencement has been made with the new Sessions House in Newington Causeway, London, S.E., according to designs by Mr. W. E. Riley, F.R.I.B.A., Superintending Architect to the London County Council. The work of demolishing the old Sessions House is well advanced and it is hoped that building operations will have commenced before the expiration of the present year. In the absence of unforeseen difficulties it is expected that the new Sessions House will be ready for occupation by the spring of 1916.

#### *Building Trade Tuition.*

An interesting movement in connection with technical education among those engaged in the building trade is being developed at the Garden City at Letchworth. Recently the manager of Woodworkers, Ltd., approached the various local firms with the suggestion that they should give time to the juniors in their employ to take up courses of instruction in building construction and geometry. The managers of the building firms in Garden City have mostly agreed to this, and the reading-room of the Pixmore Institute, belonging to the Garden City Tenants, has been placed at the disposal of the students. Mr. A. Fuller, of Royston, has been appointed instructor, and the Hertfordshire County Council is providing the necessary equipment.

#### *New University Buildings at Oxford.*

Several University buildings have lately been erected, or are at present in course of erection, at Oxford. The new Engineering Laboratory on the "Parks Nursery" site has been nearly completed and substantial progress has been made with the new Chemical Laboratory in the Parks. The new buildings for the Schools of Rural Economy, which have been designed in keeping with the original portion, will be available for use this term. The architects are Messrs. N. W. and G. A. Harrison, of Oxford. Additional laboratories and rooms have been added to the School of Forestry. The chapel at Pusey House has been completed, and good progress is being made with the new chapel for Presbyterian members of the University in Alfred Street, the foundation stone of which was laid by Viscount Bryce in June last.

#### *Sample Dwelling-houses at Swansea.*

In six sample dwelling-houses that have been built for Swansea Corporation, preliminary to the carrying out of the larger scheme under which 500 houses are to be erected, the twin bath system patented by Messrs. Alfred W. Rees and Arthur W. Bush, respectively the present and the former manager of Messrs. Mills, English, and Co., Speedwell Steel Works, Soho Street, Sheffield, has been installed. In this system little or no attention is required, and hot water is given automatically. The "sample six" comprise two houses of each of three types of which the rents are respectively 6s., 7s. 6d., and 8s. per week. The best class of house contains a living-room 12 ft. 6 in. by 13 ft. 8 in., scullery 12 ft. 11 in. by 7 ft. 11 in., larder 3 ft. by 6 ft. 10 in., fuel, w.c., and porch on the ground floor, and three bed-

rooms on the first floor, the largest of which is 13 ft. 5 in. by 10 ft. 9 in. The second type is similar, but the rooms are smaller; and the cheapest house has only two bedrooms. All the houses are fitted with cupboards, wardrobes, dresser, and kitchen ranges.

#### *Board of Trade Conference on Timber Supply.*

At a conference convened by the Board of Trade and held on October 6, there were present representatives of the R.I.B.A., the National Federation of Building Trades Employers, the Institute of Builders, the London Master Builders' Association, and officials of the Board of Trade. In considering the question of supply, it was suggested that suitable timbers of Canadian growth—red pine, for example—were available. It was shown that the cost of deals, battens and boards, had advanced by 15 to 20 per cent., and in some districts as much as 33 per cent. It was suggested that a joint committee, representing merchants, builders, architects, and governing authorities, might be constituted for the purpose of considering the question of supplies and prices, and that the Government should extend its marine insurance arrangements to cover timber cargoes in neutral bottoms.

#### *R.I.B.A. Sessional Papers.*

The list of meetings of the Royal Institute of British Architects during the forthcoming session is as follows:

November 2.—Opening General Meeting.

November 16.—Mr. Paul Waterhouse on "The Future of the Surrey Side."

November 30.—Business Meeting.

December 14.—Mr. J. J. Joass on "The Work of the late John Belcher."

January 4, 1915.—Business Meeting.

January 18.—Mr. F. C. Eden on "Ecclesiastical Buildings of Northern Italy."

February 1.—Announcement of Nomination for Royal Gold Medal.

February 15.—Mr. Andrew N. Prentice on "Spanish Architecture."

March 1.—Business Meeting: Election of Royal Gold Medallist.

March 15.—Paper. Subject to be announced.

March 20.—Mr. W. A. Pite on "King's College Hospital."

April 10.—Mr. Segar Owen on "The Design and Construction of Buildings for Industrial Purposes."

May 3.—Annual General Meeting.

May 17.—Mr. H. V. Lanchester on "The Evolution of the Architectural Competition."

June 7.—Business Meeting.

June 21.—Presentation of the Royal Gold Medal.

## TRADE AND CRAFT.

#### *Holophane Reflectors and Globes for Gas Lighting.*

Holophane reflectors and globes have established a well-merited reputation as being the most scientifically designed and the most effective of their kind on the market; they are, moreover, very pleasing to the eye, both when lighted up and unlighted. They effect a complete diffusion of light, thus overcoming the harmful results of glare, streaks, and dazzling points, and, being made in a large variety of forms, meet every requirement; some types, for example, producing even diffusion in all directions, while others concentrate the light mainly in one particular direction. This is well explained and illus-

trated in the new list specially developed for gas lighting which has just been issued by Messrs. Holophane, Ltd., 12, C. Street, Queen Anne's Gate, Westminster. Readers who are interested should send for a copy.

## FOR KING AND COUNTRY.

Mr. Gilbert Waterhouse, who was engaged on his practice at 1, Temple F. House, Hampstead Garden Suburb, has joined the Universities and School Corps. In his absence his business is being carried on by Mr. Herbert Welch, A.R.I.B.A., of 7, New Street, Lincoln's Inn, W.C.

Mr. J. M. C. Robinson, of the firm Robinson and Davidson, A.R.I.B.A. Architects and Civil Engineers, of Ladbroke Grove, has enlisted in the Royal Engineers as a despatch rider.

At last week's meeting of the London County Council it was stated that the chairman, Lord Peel, and eight members of the Council were at present serving with the Forces, while, as regards the staff, 3,592 members had responded to the country's call.

Mr. Horace Boot, President of the Institution of Municipal Engineers, has sent out a circular letter in which he mentions the names of the members, and especially students, of the 2nd London Sanitary Corps for service abroad, which is being formed by the City of London. The duty of the new corps will be to supply the water supply and camps and to report defects, and instructing the members of the combatant units. The corps will be a branch of the R.A.M.C.T.F., and the men now being enrolled are drawn from the various professions and trades connected with sanitation: mostly engineers, surveyors, architects, sanitary inspectors, and a sprinkling of men from the building trades.

#### *The "I.C.S." and the War.*

The October issue of "The I.C.S. Student" is a very warlike number. It is a central feature a stirring account of a magnificent exploit by one of the students of the International Correspondence College, Lieutenant C. N. Spratt, of the Royal Flying Corps, who captured a German Taube aeroplane, dropping his own machine upon it at a height of 100 ft. Both machines crashed with a crash, but while the German aviator was hauled severely injured from the wreckage, Spratt came off with only a slight injury to his arm. A portrait of the gallant young student supports the common remark of those who know that the exploit was "just the sort of thing that Spratt would do." That there is a lack of spirit among I.C.S. students is further evident from the fact that the schools have already furnished one corps to Lord Kitchener's army, and are forming another. At the same time the college authorities are able to make an opportune announcement: "It is of great importance that Britain should be supplied with a large body of trained workers to help us capture the trade by Germany during the great war, and are therefore not only keeping I.C.S. students at full pressure, but are conducting a vigorous campaign to enrol as students an increased number of earnest, diligent, ambitious young men—Britain's leaders in the world's commerce." The buildings owned by the Schools at Harrow have been placed at the disposal of the Government and are at present occupied by Belgian refugees.



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## PROJECTED NEW WORKS.

## London.

Subject to compliance with certain specified conditions permission has been given by the L.C.C. to the following building works:—

Battersea.—Erection of a portion of a building on the west side of Lombard Street, Battersea, upon application of F. Banister, for Whiffen and Sons.

Bermondsey.—Erection of building upon the site of Nos. 70, 72, and 74, Old Kent Road, Southwark, on application of Pilditch and Co.

Bethnal Green.—Erection of a vestry addition to the Church of St. James the Great, Bethnal Green, on application of E. T. Dunn.

Bow.—Erection of a building in Weston Street, Bow, on application of A. S. R. Ley.

Chelsea.—Erection of a building upon a site abutting upon Manor Street, Wellington Street, and Flood Street, Chelsea, on application of A. C. Auden, for the Pure Ice Company, Ltd. Addition to engine room at electricity generating station, Manor Street, Chelsea, on application of A. Roberts, for Chelsea Electricity Supply Co., Ltd.

Clapham.—Erection of two-storey bay windows and projecting porches to twelve houses in Wisley Road and three houses in Broomwood Road, Clapham Common, on application of F. L. Poole for W. E. Kerven.

Finsbury.—Erection of an additional storey at 9, Clerkenwell Road, Finsbury, on application of H. Branch for May, Roberts and Co., Ltd.

Hackney, N.—Erection of a steel and iron building at the rear of 94, Kingsland High Street, on application of G. Nutter and Sons for Blundell and Co. Additions to No. 36, Downs Park Road, Hackney, on application of R. Setchell for Dr. Goiten.

Hackney, S.—Erection of steel chimney staff at the electricity generating station, Millfields Road, Hackney, on application of L. L. Robinson for the Hackney B.C.

Hammersmith.—Additions to West London Hospital, Hammersmith, on application of W. H. White for the hospital.

Holborn.—Erection of a building at Nos. 42-43, Eagle Street, Holborn, to be used as electric battery and transformer station, on application of J. W. S. Burmester for the Metropolitan Supply Co., Ltd.

Kennington.—Erection of projecting shop fronts at the block of Old People's Dwellings, next Sancroft Street, Newburn Street, and Prince's Road, on application of Adshead and Ramsey for the Duke of Cornwall Estate.

Lambeth, N.—Additions and alterations to St. Thomas's Church, Westminster Bridge Road, Lambeth, on application of E. Proctor.

Lewisham.—Erection of a house at East-down Park, Lewisham, on application of W. Goddard for H. W. Ayres. Erection of projecting porches and bay windows at 116 to 126, Grierson Road. Honor Oak, on application of Norfolk and Prior for C. Walker. Erection of oriel windows, bay windows, and hoods at 157 to 163, Manwood Road, Lewisham, on application of J. Nicholls.

Marylebone, E.—Erection of a block of flats on sites of 9 to 13, New Cavendish Street, and 21 to 25, Hallam Street, Mary-

lebone, on application of F. T. V. G. S. Ferdinando. Erection of ing towers at the generating station Road, on application of C. Stanle for the Central Electric Supply Co.

Marylebone W.—Erection of House, to abut upon Brown Street Place, and Moore Street, Marylebone, on application of V. Wilkins. Erection of underground pump chamber at electricity station, Richmond Street a bury Street, on application of F. Chidgey for the Marylebone B.C.

Norwood.—Erections of building Baytree Road, Brixton, on application of E. Evans and Sons for A. Brauns.

St. George's, W.—Additions to 4 Old Bond Street, and 4, Albemarle Street, on application of C. H. B. Quer Messrs. Agnew.

St. Pancras, W.—Erection of garage on a site abutting on I Street, Harmond Place, and F Place, St. Pancras, on application of Ashby for the London General Company. Re-erection of the So public-house, 65, Hampstead R Pancras, on application of Ee Meyers for B. H. Colson and Hanbury, Buxton, and Co., Ltd.

Strand.—Reconstruction of Saville Row, W., on application and Wigglesworth.

Westminster.—Erection of a building abutting upon Vauxhall Bridge, Carey Place, and Douglas Street, Westminster, on application of Tape Haas. Additions to St. Stephen Victoria Embankment, for For Maule for the Trustees of the Cl

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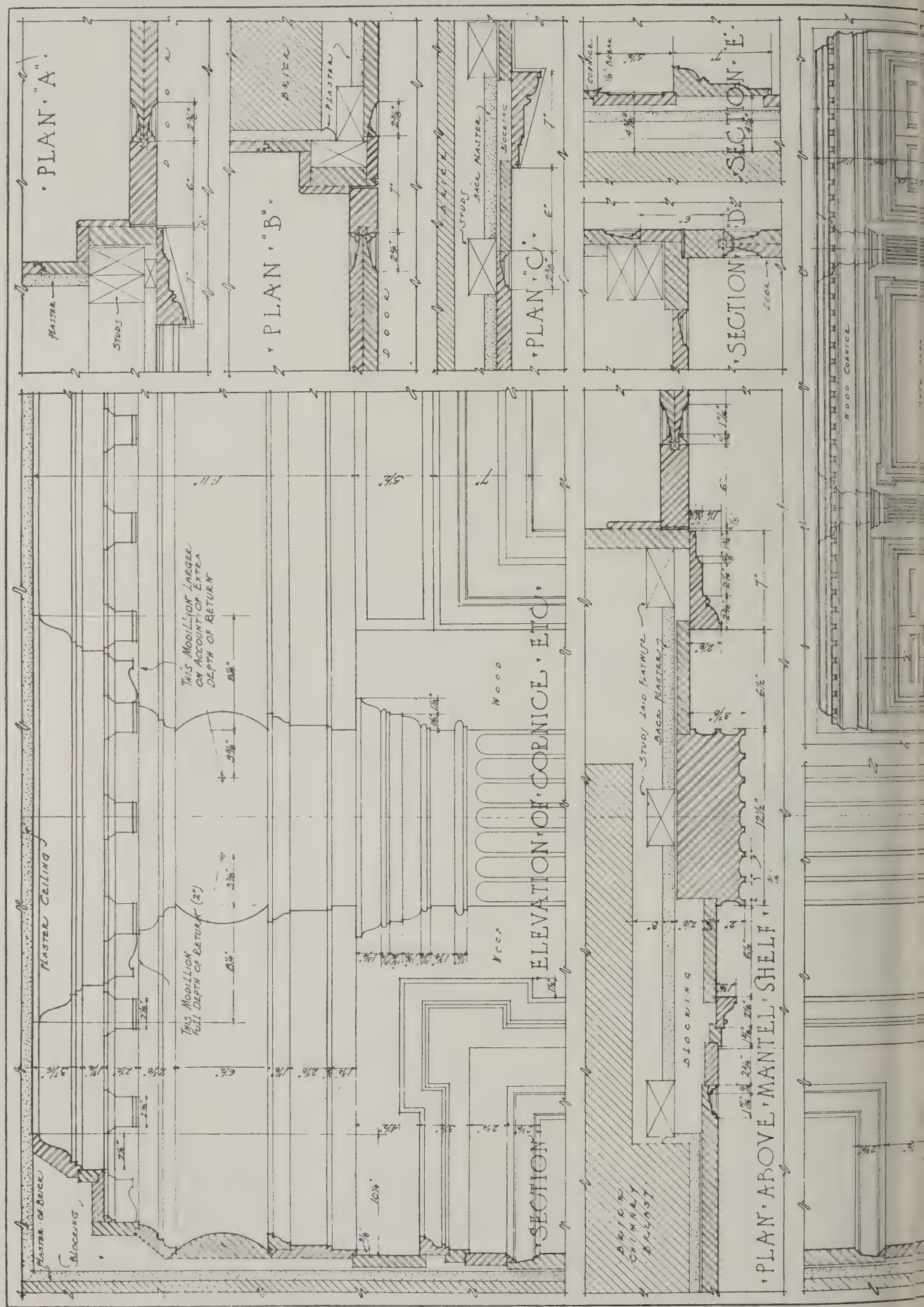
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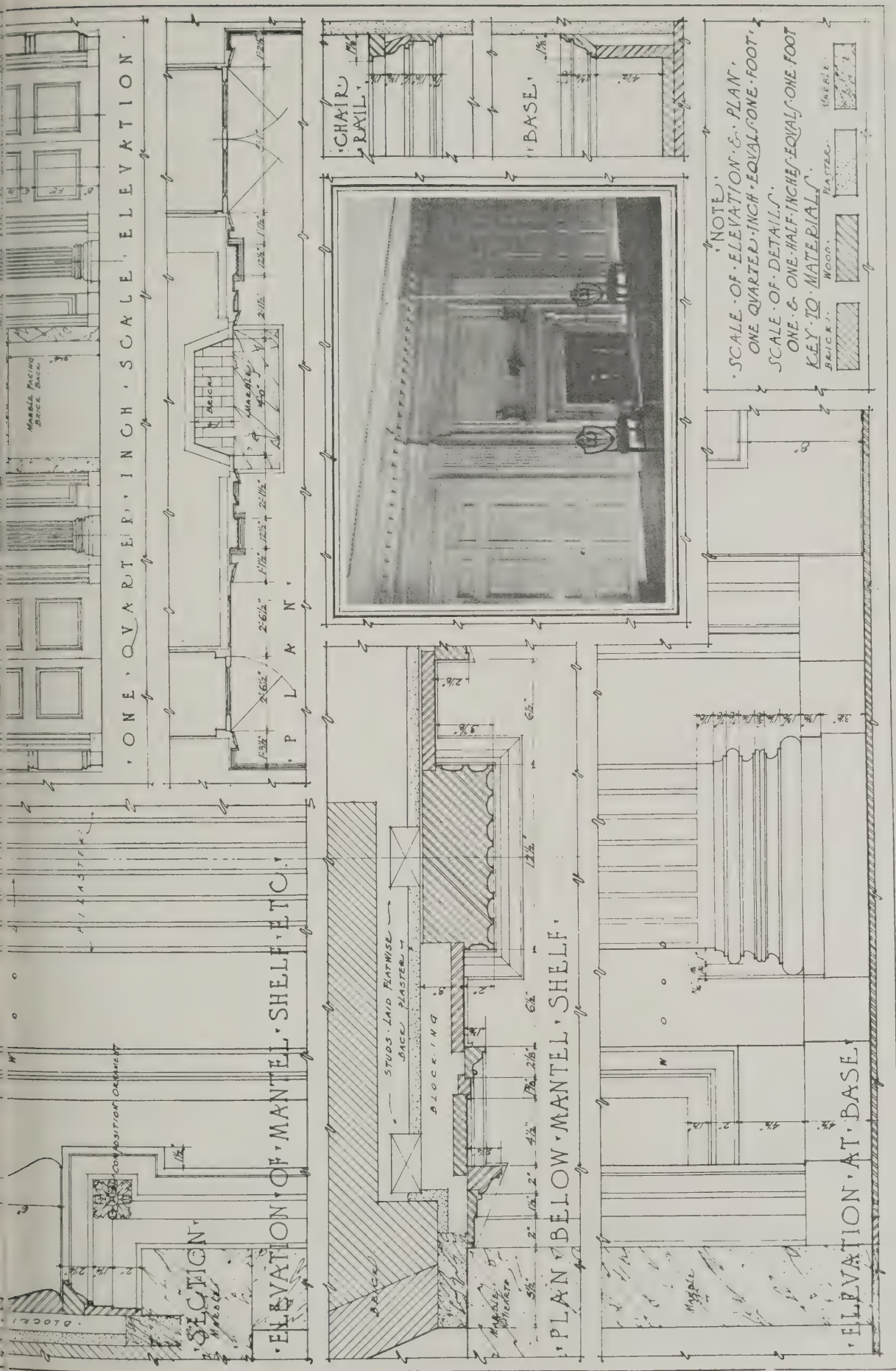


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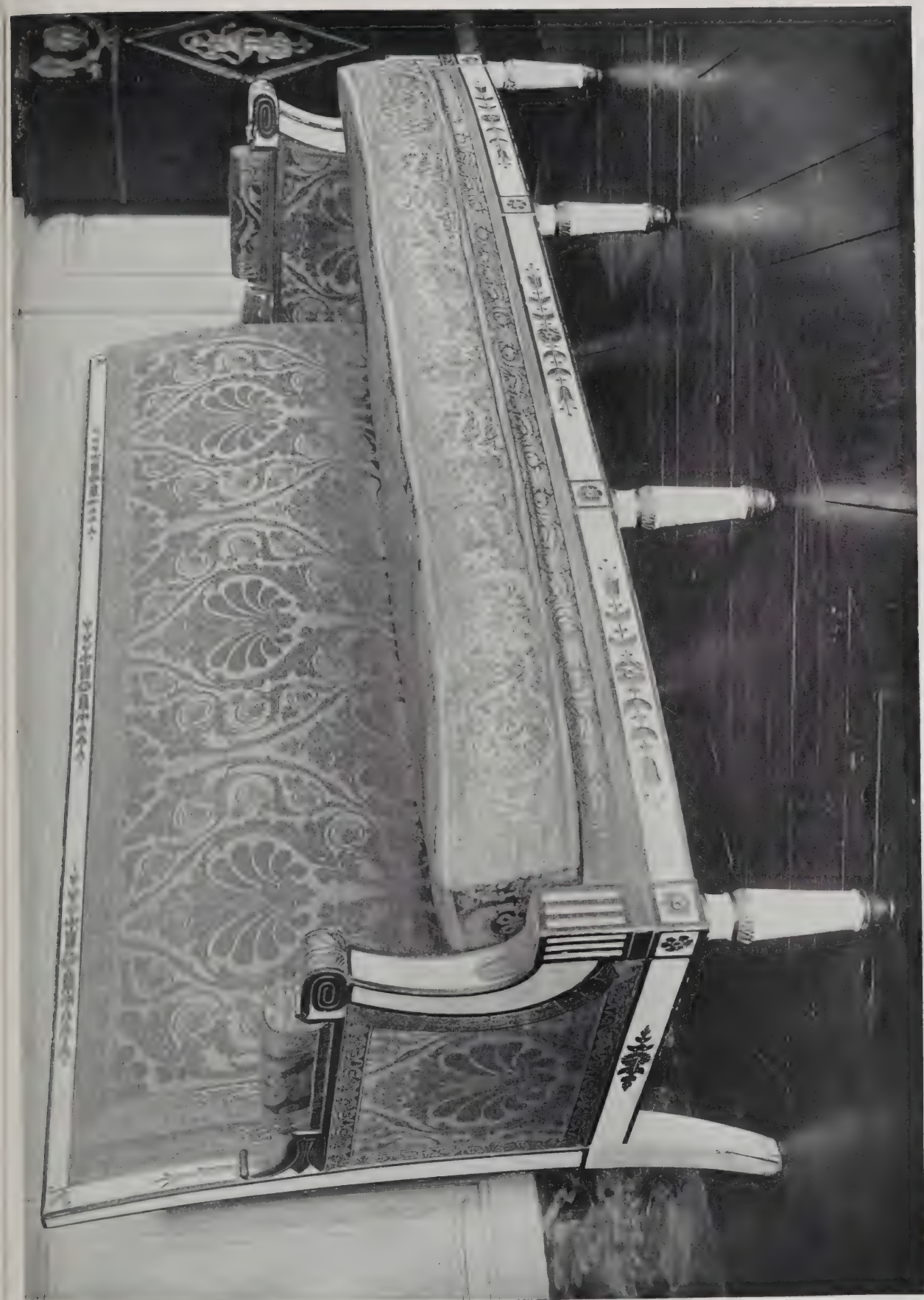
WORKING DRAWINGS BY WELL-KNOWN ARCHITECTS (NEW SERIES). XLII.—WOODWORK IN DINING-ROOM, HOUSE AT NEW LONDON, CONNECTICUT, U.S.A.

CHARLES A. PLATT, ARCHITECT. (DRAWN BY WALTER McQUADE.)



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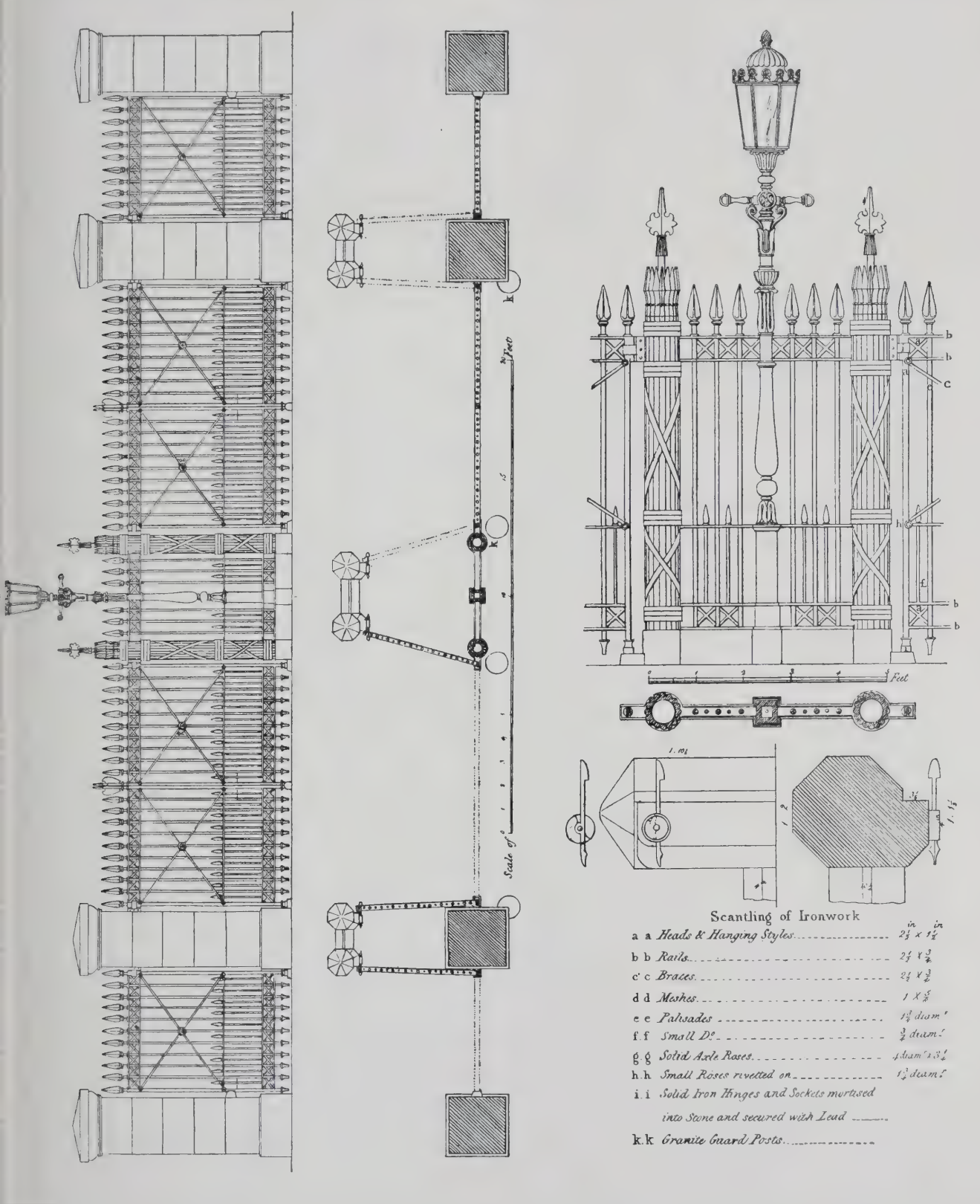


FRENCH EMPIRE FURNITURE. II.—SETTEE IN THE GRAND TRIANON, VERSAILLES.









COTTINGHAM'S DESIGNS FOR IRONWORK. XXV.—ELEVATION, PLAN AND DETAILS OF CUMBERLAND GATES, HYDE PARK, LONDON.







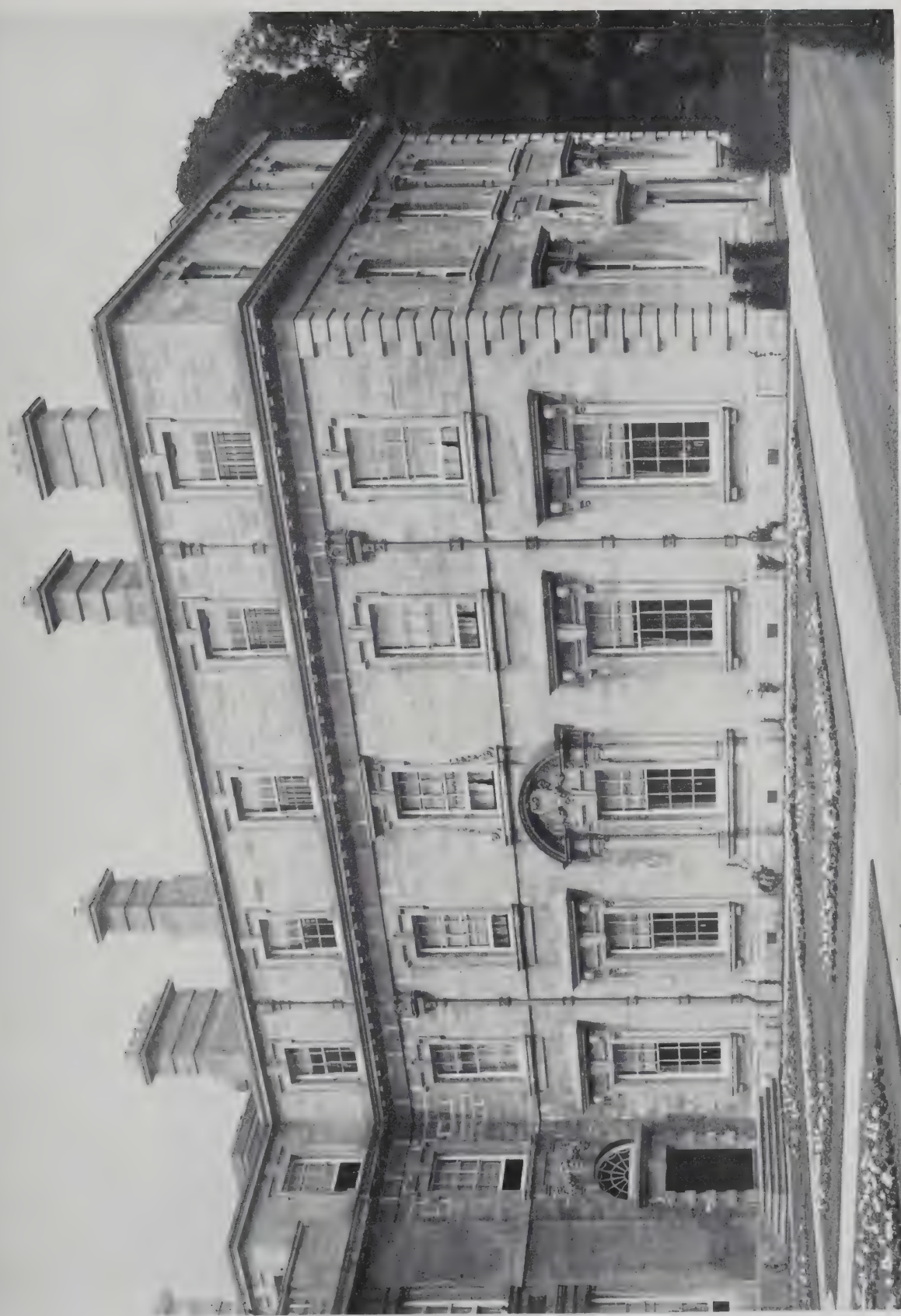


SMALL HOUSES OF THE LATE GEORGIAN PERIOD. XXXI.—TWO HOUSES IN KENNINGTON ROAD, LONDON, S.E







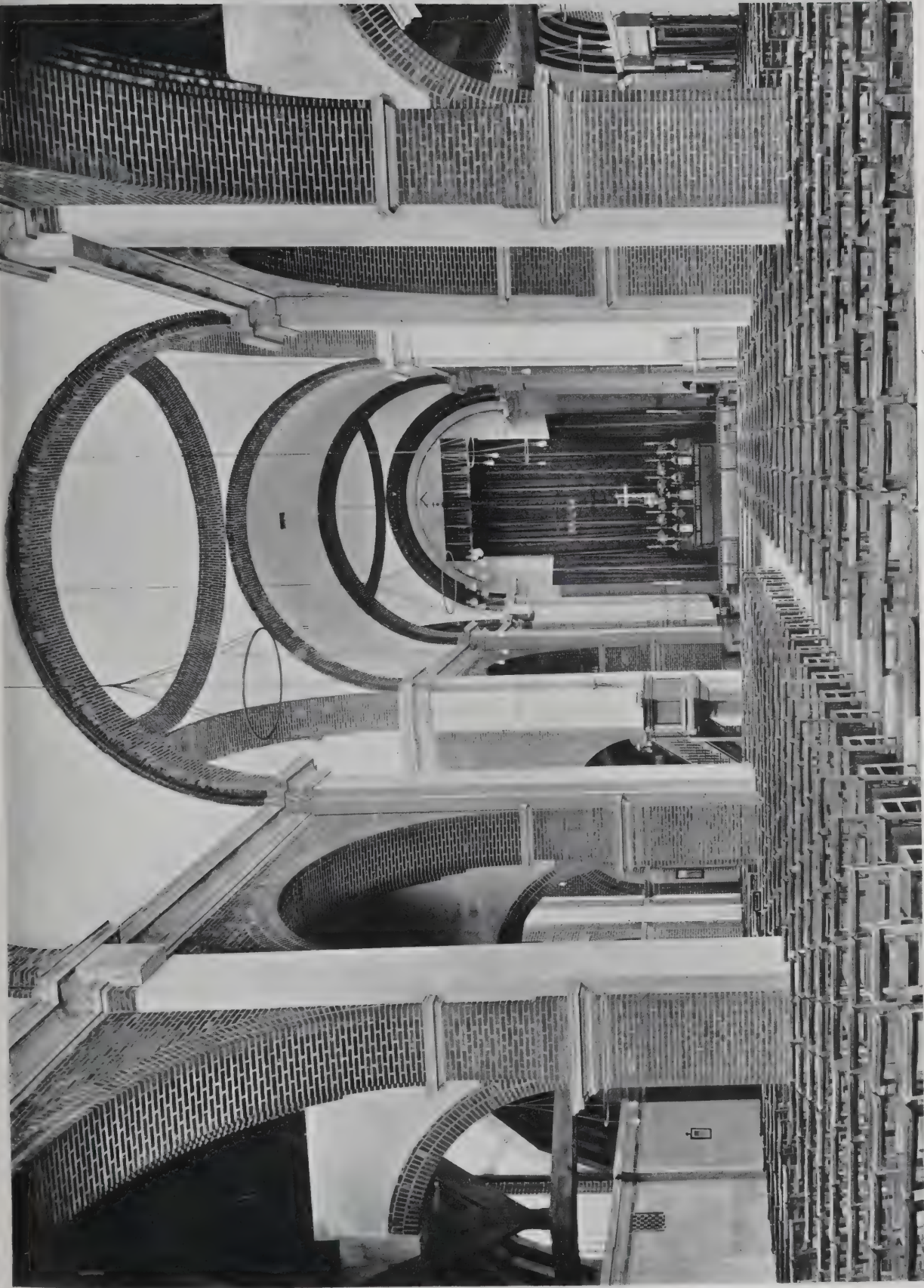


MODERN DOMESTIC ARCHITECTURE. XLII.—NEW WING TO NORMANBY PARK, LINCOLNSHIRE.  
WALTER H. BRIERLEY, F.S.A., F.R.I.B.A., ARCHITECT.







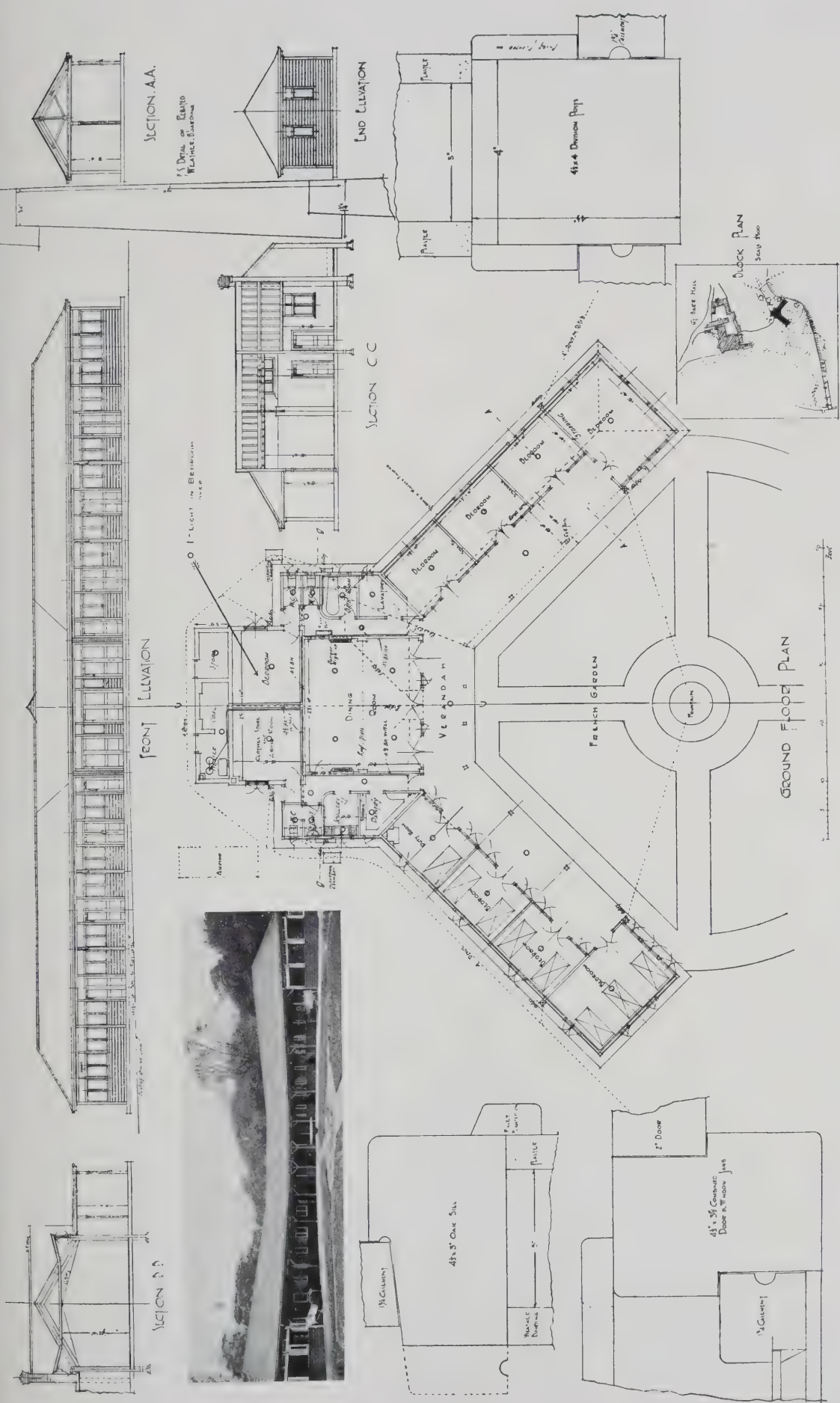


CURRENT ARCHITECTURE. LXXXV.—CHURCH OF ST. JUDE-ON-THE-HILL, HAMPSTEAD GARDEN SUBURB, LONDON, N.W.  
E. L. LUTYENS, A.R.A., F.R.I.B.A., ARCHITECT.









CURRENT ARCHITECTURE. LXXXV.—SANATORIUM, GREAT BARR PARK, BIRMINGHAM.

GERALD MCMICHAEL, A.R.I.B.A., ARCHITECT.



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THE  
ARCHITECTS' & BUILDERS'  
JOURNAL.

Wednesday, October 28, 1914.

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No. 108.



(From Piranesi.)



# THE ARCHITECTS' & BUILDERS' JOURNAL.

OCTOBER 28, 1914.

TOTHILL STREET, WESTMINSTER.

VOLUME 40. No. 1034.

## EDITORIAL.

AN anonymous letter to "The Times" complains that His Majesty's Office of Works is inviting tenders for furnishing with bookcases the offices of the Board of Agriculture, and is specifying Austrian oak for the work. It is suggested by the letter-writer that there is plenty of English oak which can be used for this purpose, and that the specification of Austrian oak is unpatriotic. With this protest we are in entire agreement. Surely Austrian oak must have been specified by mistake, or by the thoughtless repetition of a term that has suddenly become obsolete. Doubtless there are still large stocks of Austrian oak remaining in this country, and if these stocks have been bought and paid for by English traders, it would be wasteful not to make use of them. Still, a Government Department should be puritanically patriotic; and if the Office of Works must have oak furniture—and we do not admit the necessity, seeing that mahogany is good, plentiful, and cheap, and may be had, in certain qualities, from British possessions—it should specify British, or, failing that, Japanese oak.

Concerning Japanese oak we have received inquiries from correspondents who wish to know whether it can be used in substitution for Austrian. One of these we have referred to the Consulate-General of Japan, who replies that "Japanese oak has a beautiful attractive grain, is not so hard as American oak, is like Austrian oak, and is used as a substitute for Austrian oak on the European Continent. It is chiefly used in the manufacture of good furniture, panelling, and flooring." For British oak we have a respect that hardly stops short of veneration, less, perhaps, for its intrinsic merits as timber than for its association with the Navy when "our ships were British oak." But the ships well-nigh exhausted the supply, and the importation of cheap foreign substitutes has prevented the re-afforestation which might have maintained a sufficient supply for more modern purposes.

As it is sentiment that is the main factor in the fondness for oak furniture and oak panelling, many a dining-room panelled and fitted and furnished with Austrian oak being fondly imagined by the owner to be essentially and peculiarly British in character, general enlightenment as to the source of the supply, combined with patriotic antipathy to Austria, may change the fashion to something more congenial to sentiment and at least equally satisfactory. Besides Japanese oak, there are available many woods that, beautiful in colour, in texture, and in figure, may be obtained within the British Empire; and certainly we feel that this is one of the very many opportunities, never so vividly presented to us as in the lurid light of war, of developing the Empire's resources, and thus increasing its unity and strength.

To postpone the competitions for prizes and scholarships was, as we were among the first to suggest, only fair and sensible course; and the R.I.B.A. adopted it. In the official announcement it is stated that the 1915 competitions are postponed until next year, but this way of putting it does not necessarily give any estimate of the duration of the war. If it should happen that the war is not over and done with by the time next year, the Council can repeat the postponement. The Council, in further deciding that candidates now coming within the age-limit shall be considered eligible for the 1916 awards, have acted fairly enough towards the candidates to whom the order directly applies; and any disadvantage that may be thought to affect those candidates who may consequently find themselves in competition against slightly older men seems to be quite negligible. In the competitions a year or two's difference in age has never been taken into account, and, in the nature of the case, would, indeed, be of much less practical effect than a similar disparity in, say, an examination for university honours, where a uniform problem is tackled, and a year's greater or less maturity may vastly affect the candidate's chances of competitive success.

Apparently the R.I.B.A. competition most affected by the age-limit in relation to the war is the Egerton Studentship: a candidate for the silver medal and its £100 pounds must be between the ages of eighteen and twenty-five—ages that correspond pretty closely to the most prolific recruiting period. Upon the "Measure of Drawings," the Jarvis, the Soane, and the Tite competitions the incidence of the war would be much less severe, for these the age-limit is thirty. For the Owen Jones it is thirty-five; while to win the Essay Medal a candidate is but barely "too old at forty"—Thomas Hardy won it, in 1862, he could have been more than two-and-twenty. To be within reach of the Grissell, one must have been in practice not less than ten years; but there is no age-limit for the Gowland Bursary, nor for the Saxon Snell. The latter, though awarded triennially, is not affected by the present readjustment. The Cates and Ashpitel are available to students.

The war will furnish a fresh entry for a barren year. In the years of the silver medallists for essays it is worth noting that on eight occasions the prize was not awarded, and once, in 1890, the note is "No essay received." In 1905 the medal was won by a lady, Ethel Mary Charles. Only once has the medal for drawings been withheld—in 1907. Five times the examiners have seen fit to withhold the Soane, never once the Pugin, except on an occasion when, though the award was made, the prize was withheld on "conditions not fulfilled." For the Godwin there



lications in 1887, and on half a dozen years it not awarded," an entry that appears thrice in the Jones register, four times in the Tite, and in half an instances in the Grissell, for which, in 1884-5, signs were received. Only once has there been a Cates prizeman; but the Ashpitel has been held on four occasions.

At the Germans conduct warfare on strictly business lines is evident from everything they do, from highly elaborate spy organisation down to the dragging of their advancing columns by driving women and children before them. That they have longed for the conquest of England is beyond doubt, and it follows that so systematic and unscrupulous a foe could omit no means that seemed possible to them of plotting out that conquest in fullest detail. We must not dismiss with contempt the suspicion haunting in many minds to absolute conviction—that it was not by a mere lucky accident that the Germans found at Maubeuge, in a favourable position for themselves, exactly the kind of gun-emplacements needed for their artillery. Nor would it be prudent to dismiss with an incredulous shrug of the shoulders the accumulating evidence that similar preparations have been made rather extensively in this country by our agents acting under military guidance.

Of the structures that have come under notice as admirable strategical positions. One is said to guard the whole of Torbay and a stretch of several miles at sea, as well as the towns of Torquay, Paignton, and Dartmouth. Another—at Willesden—is not far from the Great Western main line, and is also within a few minutes of Willesden Junction, on the London and North-Western main line. A third occupies a commanding position near the Firth of Forth; and there are many others that, to official raiders or official reporters, appear to have been placed with great skill. Of the wild stories of cave armouries, underground petrol stores we take but little notice; nor do we lay undue stress on the heavily constructed factories that occupy positions of strategic importance near railways or seaports. If the factories do anything (and it is said that some of them do), which is the fact that has brought their *bona fides* into question, they may not be very remote from the necessities of transport; and to withstand the weight and strain and tear of modern machinery they must be very strongly constructed. That these conditions would be very handy in a state of war may or may not have been in the consciousness of the Germans who have caused so many of these substantial structures to be erected.

As to the perfect good faith of the architects, engineers, and contractors engaged to design and construct them there is, it need not be said, no shadow of a shade of doubt. They could never have consented for a single moment that their good work and excellent materials would be turned to base account; we are perfectly certain that in every case they were willing and eager to give the police authorities assistance in their power by setting in the best possible light the details of construction which had occasioned so much alarm, real or pretended, in the minds of newspaper writers and readers. With regard to the Willesden case, the explanation of the extraordinary thickness of the roof is that it was intended to form the floor of an added storey in which heavy machinery was to be housed; and certainly it is one of the peculiar virtues of reinforced-concrete construction that it can provide for heavy loads on upper floors. Whether in any instance, or series of instances, the cunning and forecasting enemy has taken any enormous advantage of this quality should certainly

be the subject of exhaustive inquiry, in which, it goes without saying, the authorities may depend on the fullest and frankest help from the professional and business men who have had experience in reinforced-concrete construction.

It is gratifying to find that the Architects' War Committee is proving its capacity to render substantial service to the State. As will be seen from the record of activities which we print in another part of the present issue, very prompt and effective response has been made to requests from the Government for help which the committee was able and anxious to give; and where the work happens to fall somewhat outside the scope of the committee there has been no difficulty in securing the enthusiastic co-operation of trade and other organisations. There is also a proposal for productive employment of professional men on civic surveys, with a view to collecting complete data upon which to base town-planning schemes. Certainly no more comprehensive means of putting to economic use the very various professional talents that tend more or less towards specialisation could well have been devised, nor could they have been combined in a more useful work than that of pioneering for the great town-planning movement that is sure to gather momentum when the war is done.

Of less practical importance, but still very useful in its way, is the additional scheme, based on proposals made by the Society of Architects, for the measurement of buildings of architectural or historical interest. Such work, if it possess no other value, will increase knowledge, and should greatly accelerate the pace of the Government survey. In co-operation with the allied societies, the Selection Committee are preparing lists of architects in all parts of the country competent to undertake such works as the Government are likely to require. That is a very useful sort of civil mobilisation, and we trust that professional men will do their utmost to render it entirely successful. Finally, Mrs. Maurice Webb is at the head of an organisation which is to keep in touch with architects at the front, to send them comforts, and to look after their wives and families. Beautiful and most beneficent work this, and in it Mrs. Webb, we are sure, will have the enthusiastic support of the wives and daughters of architects who are in a position to help her in any way.

It is very refreshing to read, in war-time, of art treasures changing hands, not as loot, but for "good consideration." The Chancery Division has just sanctioned the sale, by Sir Edgar R. Sebright, of two portraits by Sir Joshua Reynolds, respectively of Richard Croftes, of West Harling, Norfolk, and Mrs. Croftes. They are three-quarter-length portraits, the canvas measuring in each instance 51½ in. by 45 in. The lady wears a red and green shot silk dress and holds a fan, the gentleman a red coat and striped waistcoat, and to each figure there is the once indispensable landscape environment; for no more than Watteau or Fragonnard did Reynolds perceive the deadly mutual antagonism between costume and natural scenery. It is supposed that these portraits were exhibited for the first time at the Royal Academy in 1808, when probably the portrait of Richard then had been painted some forty years. The other is probably of a more mature period, for it seems to be painted with more masterly assurance. The £16,000 paid by the present purchaser, the Hon. C. S. M. Bateman-Hanbury, is quite good as the times go; and one is glad to know that the portraits are not to leave England. Had it not been for the passing, a year or two ago, of the Act forbidding the deportation of art treasures, wealthy Americans would surely have made the most of an unprecedented opportunity for enriching their collections and depleting ours.



## HERE AND THERE.

THE name of Cottingham having figured frequently in this Journal of late, in connection with his series of designs for ironwork, I have been prompted to discover something about the man, of whom I knew little other than that he was one of the band of architects who flourished about the 'twenties and 'thirties of the nineteenth century. So I have dipped into records, meagre enough it must be admitted, and as the particulars gleaned may possibly be of interest to those who have studied Cottingham's designs I now give them. The architect's Christian names, or at least one of them—Lewis Nockalls Cottingham he was called—will offer occasion first for pause. One might suppose that anyone would hardly be thankful to his god-parents for such a gift as "Nockalls," unless perhaps he were a boasting person bent on advertising himself; but Cottingham certainly appeared to think otherwise; in fact, we may assume that he rejoiced in the queer appellation, for he had a son and he called him "Nockalls Johnson Cottingham." But it is the father with whom we are here concerned, and so to proceed. Cottingham, then, was a Suffolk man, the son of a farmer of good antecedents. Having, as they say, evinced a taste for science and art, he drafted into the profession of architecture, not, however, as an articulated pupil to an indifferent architect, but by way of the builder's yard. He was apprenticed to a builder at Ipswich, and, having thus received a sound training in practical affairs, he started practice as an architect in 1814 and came to London, where he appears to have established himself very comfortably; for in 1822 he became architect to the Cooks' Company (of which strange-sounding body I have no knowledge) and three years later was entrusted by the Dean and Chapter with repairs and restoration at Rochester Cathedral, where, among other things, he was responsible for the rebuilding of the central tower.

Cottingham gained a reputation as a Gothic architect, and carried out a good deal of important work, including the restoration of the interior of the chapel at Magdalen College, Oxford, which work he secured in competition in 1829; the repair of St. Albans Abbey (1833); the almost entire rebuilding of Armagh Cathedral; the restoration of the tower and spire of St. James's Church, Louth, which had been shattered by lightning; the restoration of the Norman tower of St. Mary's Church, Bury St. Edmunds; and the restoration of Hereford Cathedral, on which he was engaged at the time of his death in 1847. He was also concerned with the restoration of the Lady Chapel at St. Saviour's Church, Southwark, and with restoration at the Temple Church. A fair amount of domestic work also fell to his share, one of his most important undertakings being the laying out, in 1825, of the extensive estates on the Surrey side of Waterloo Bridge. Here he built a house for himself, in Waterloo Bridge Road, which comprised suites of rooms specially designed to receive the valuable collections of architectural works and the library which he formed during his career, among the collections being fragments of Gothic carving in stone and wood preserved from buildings that had been destroyed. Like other architects of his day, he published several volumes dealing with architecture. First came a book giving plans, elevations, sections, and details of Henry the Seventh's Chapel at Westminster Abbey, next a similar book on Westminster Hall. Then "The Smith and Founder's Directory, containing a Series of Designs and Patterns for Ornamental Iron and Brass Work." Then a book of large-scale illustrations of mediæval carving—the first of its kind. And, lastly, a book on Greek and Roman architecture, with large folio plates. The illustrations in these volumes are well engraved and they display in their selection a detailed knowledge of

both Classic and Gothic architecture, coupled with artistic faculty of some considerable merit.

As to his worth as a Gothic architect, opinion is the same to-day as it was among his contemporaries. Cottingham was one of the pioneers of the Revival, and some glory might have enveloped his name if only that movement had been one we could contemplate with approval, but the facts are other, and so we read that "as an architect he is esteemed more for his draughtsmanship than for the works he carried out: in the latter his enthusiasm for the Gothic Revival frequently overcame his discretion in handling the buildings entrusted to his care, which is a very pleasant way of putting things. When on classical ground, Cottingham could do no work enough, as his designs for ironwork have shown. Certainly there is much merit in these. Innumerable pleasing patterns for balconies and railings are shown, but I have the suspicion that the executed work is lacking in some of the grace of the drawings. (I recently I was studying some old gates attributed to Cottingham, and the cast-iron work appeared to me too clumsy. The truth is, you cannot get in a cast-iron railing or a cast-iron grille the quality which is inherent in wrought work. Of course, I know all this is put down to the discredit of architects, who, helped by James Gibbs, are accused of having usurped the place of the craftsman, so bringing about the inevitable decline of smith work. And no doubt there is weight in the assertion. But to-day, at any rate, on grounds of expense, cast work is generally the only possible expedient, and on that account its design should be the more carefully studied. Architects would be better qualified if they devoted more attention to the practical processes involved in carrying out their designs in metalwork. They would then avoid details which are difficult to work out in the material. As regards cast-iron work, they would certainly benefit by making themselves familiar with modern foundry practice."

I saw a paragraph the other day in one of the newspapers to the effect that the citizens listened attentively when the tubular bells in the new church were played for the first time. Those citizens have my sympathy. Tune-playing on bells, whether they be in a church tower, or part of the mysteries of a chiming clock, is a dangerous business. It is part of the same conceit that has ended in musical horns on motor-cars, where the chauffeur's fingers run idly over the keys. No one would qualify this general accusation. Those who have heard them tell me that the sound of the bells in the tall tower of Antwerp which has escaped destruction floated down like a cloud of entrancing music, and I am ready to accept the statement. But not far away from Amsterdam, I can forswear that there is bell music of another sort, proceeding from the tower of the Royal Palace. This bell music, it appears, has a certain reputation for its "quaintness," but to my ears the sound resembles the tinkling of superannuated keys with decrepid pokers. There is but one tune, and it begins with the quarter. At the half-hour we get a little more of it, and at three-quarters we hear a new one has gone before plus another portion, until finally the complete gamut is achieved at the hour, and repeated for special delectation, as though we could never get enough of it. And such an achievement is not exclusive to the Royal Palace of Amsterdam. A modification of it has been going on for years at Cambridge, at the Church of the Holy Angels. But in this case at least there is a proper tune, a very pleasant tune, indeed, though one is apt to tire of it after hearing it chimed out, in part or whole, for a few hundred times. What brings me back to my first remark, that the citizens newly presented with the tubular bells have my sympathy.

UBIQUITY



## THE PLATES.

*Phoenix Assurance Building, Glasgow.*

The design of the new building which has been erected for the Phoenix Assurance Company at the corner of St. Vincent Street and West Nile Street, Glasgow, modern American work has, possibly, been closely studied, but the building is an individual achievement, and the architects, Campbell and Hislop, are to be congratulated for the result.

The company's offices occupy the ground and first floors, the remaining floors being divided into lettable flats.

The lower portion of the building is designed to emphasise the position occupied by the insurance company. The materials used are grey granite, with iron window frames, the upper portion being of Black Pasture stone. The entrance gates are of iron, and the building is finished throughout in a manner keeping with the reputation of the Phoenix Assurance Company. A complete heating system is installed, and in addition fireplaces are provided, the smoke being collected into one central chimney-stack by means of an ingenious and novel method. The following is a list of the principal contractors for the building; Messrs. Campbell, mason-work; Redpath Brown & Co., Ltd., steelwork; the Allen Construction Co., plastering floors; Wallace and Connell, plumbers; Cochrane, joiner-work; George Wragge, Ltd., electric lighting; Messrs. Claud Hamilton, Ltd., electric lighting; Messrs. Good and Otis, Ltd., lifts; G. N. Haden and Sons, gas and ventilation; the Bromsgrove Guild, iron and bronze gates.

*Two Late Georgian Doorways.*

Two doorways illustrated both date from the latter years of the eighteenth century. The one in the Adam House, London Road is characteristic of the Adam style in this country, whilst the doorway from the Old House, Chiswick, is more suggestive of the work in America, which was contemporary with the Adam period. The caps of the pilasters to the Adam House doorway were originally filled in with stone, the necking and the cap with small leaves, and carried the richness of the brackets supporting the pediment into the lower portion of the design.

*Screen and Gates, Palais de Justice, Paris.*

Many hands have been at work in the rebuilding and extension of the group of buildings known as the Palais de Justice, Paris, that it is extremely difficult to do the work correctly. It would appear, however, that the screen and gates that extend across the courtyard, known as the Cour du Mai, in front of the entrance from the Boulevard du Palais are the work of Duc, who, in conjunction with Dommey and Maumet, carried out an extensive scheme of reconstruction about the middle of the last century.

*French Empire Chair.*

A special feature of the arm-chair from the Grand Salon is the sweep of the arm, which forms a very graceful outline, though it is not perhaps so satisfactory as the more customary treatment with the arm carried straight on the leg.

*Working Drawing of Crowholt Lodge, Woburn.*

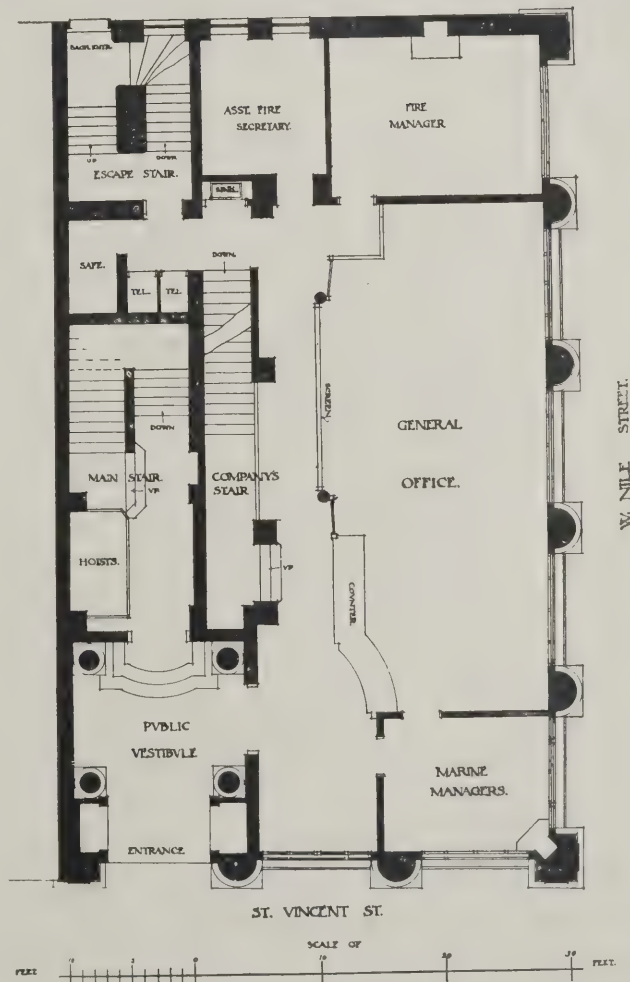
A verandah porch forms part of the alterations and additions which are now being carried out at Crowholt Lodge by Messrs. Adams and Holden for the Duke of Bedford. The drawing is self explanatory, and may be mentioned that the porch is of wood.

*Addition to Normanby Park, Lincolnshire.*

We regret that the plan of this addition, by Mr. H. Brierley, F.S.A., F.R.I.B.A., did not reach the printer in time for inclusion with the plate which was given in the present week's issue. The plan will be found on page 274 of the present issue.



View in General Office.



Ground-Floor Plan.

PHENIX ASSURANCE BUILDING, GLASGOW.  
CAMPBELL AND HISLOP, ARCHITECTS.



## COMPETITION FOR LONDON COUNTY COUNCIL SCHOOLS.

THE designing of new schools erected by the London County Council having hitherto been carried out entirely in the official department—formerly the Architect's Department of the London School Board, now the department of the Superintending Architect to the Council—much interest is centred in the competition which has been held for the design of two elementary schools at Linda Street, Battersea, and at Billingsgate Street, Greenwich. This being the first occasion on which the design of L.C.C. schools has been made the subject of open competition, a large entry was anticipated, more especially in view of the criticism raised against official architecture, but only fifty-eight designs were sent in, forty-five for the Battersea school and thirteen for the school at Greenwich. These designs were on exhibition at the Whitechapel Art Gallery last week, and it cannot be said that as a whole they displayed any special merit.

The assessor, Mr. John W. Simpson, F.R.I.B.A., awarded the first place for the Battersea school to Mr. Arnold Mitchell, F.R.I.B.A., of London, and the first place for the Greenwich school to Messrs. Wright and Chapman, of Newcastle-upon-Tyne.

The accompanying illustrations show Mr. Mitchell's design, which is very cleverly worked out in its details. The building is of one storey only. Special attention is drawn to the lighting and ventilation: the three halls and the whole of the classrooms have continuing windows at ceiling level on *both* of the opposite sides of the rooms.

As regards materials of construction, the design is noteworthy as proposed to be carried out in reinforced concrete and reinforced brickwork, the walls being of the latter, 9 in. in thickness, rendered with two coats of cement outside and plastered internally. There would be concrete floors to the teachers' and practical work rooms, and a 4-in. concrete ceiling to the

corridors, and concrete lintels would be used throughout. The beams to the mezzanine and first would be of reinforced concrete. Steel trusses would be employed for the roofing of the halls and practical rooms, but there would be no roof trusses elsewhere, all classroom roofs being carried by steel purlins and the cross walls. The roofs would be boarded, felted, and covered with Bangor slates with green ridge. Flats and finishings would be of 5 lb. (unless 16 oz. copper could be obtained at a lower price as is possible). Terrazzo paving would be laid in corridors, lavatories, and cloak-rooms, the classroom floors being laid with Terralith or similar material while in the mezzanine and practical work room floors would be of deal blocks.

The woodwork throughout would be American whitewood, painted externally, and stained dark and varnished inside.

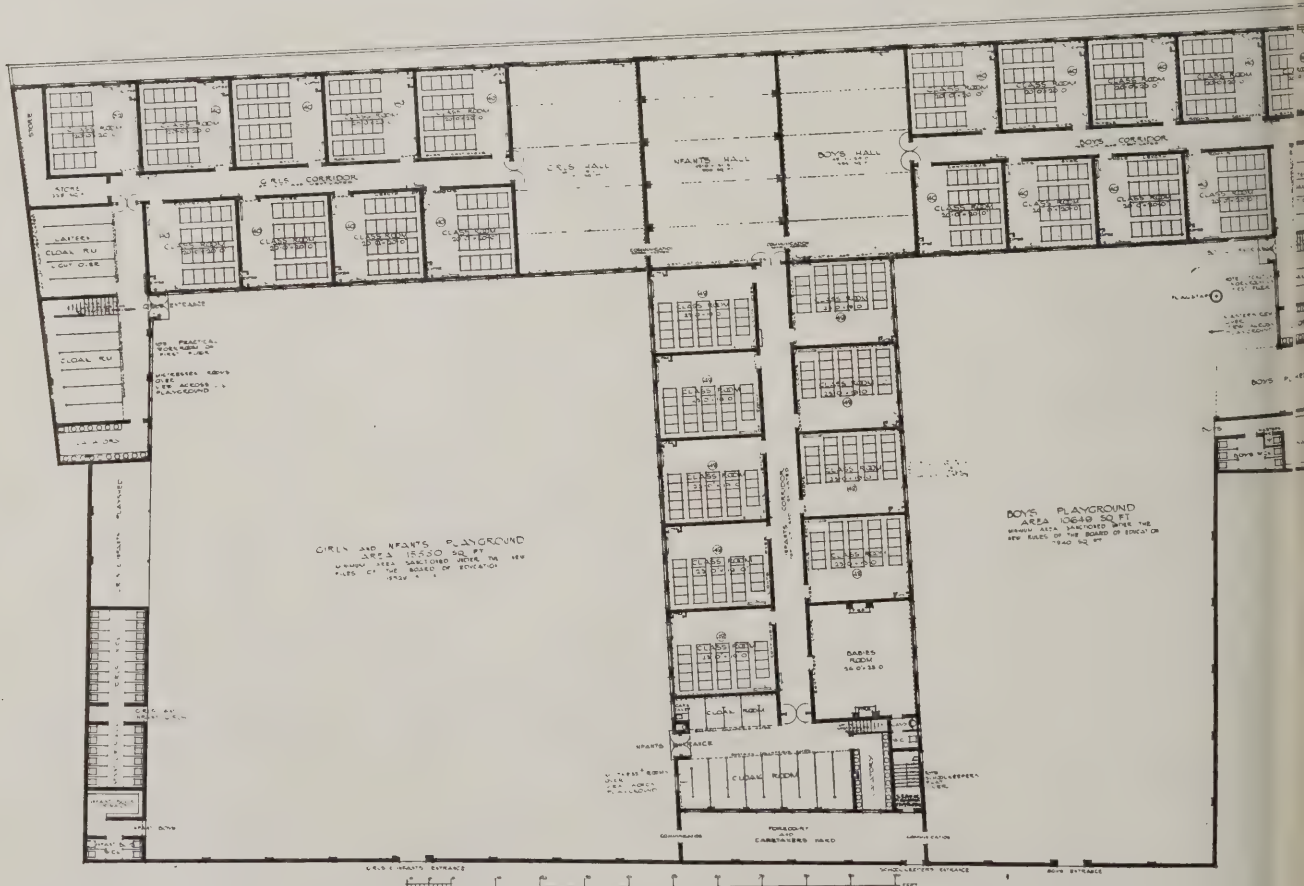
The following approximate cost is given by Mr. Mitchell:

|                                                  |         |
|--------------------------------------------------|---------|
| Main building (including caretaker's flat) ..... | £14,132 |
| W.c.'s, urinals and covered playgrounds .....    | 64      |
| Formation of playgrounds .....                   | 1,00    |
| Drains .....                                     | 67      |
| Entrances and boundary walls .....               | 65      |
| Heating .....                                    | 90      |
| Equipment of practical work rooms .....          | 10      |

£18,09

There being 1,252 places in the school, this total comes out at £14 9s. 1d. per place.

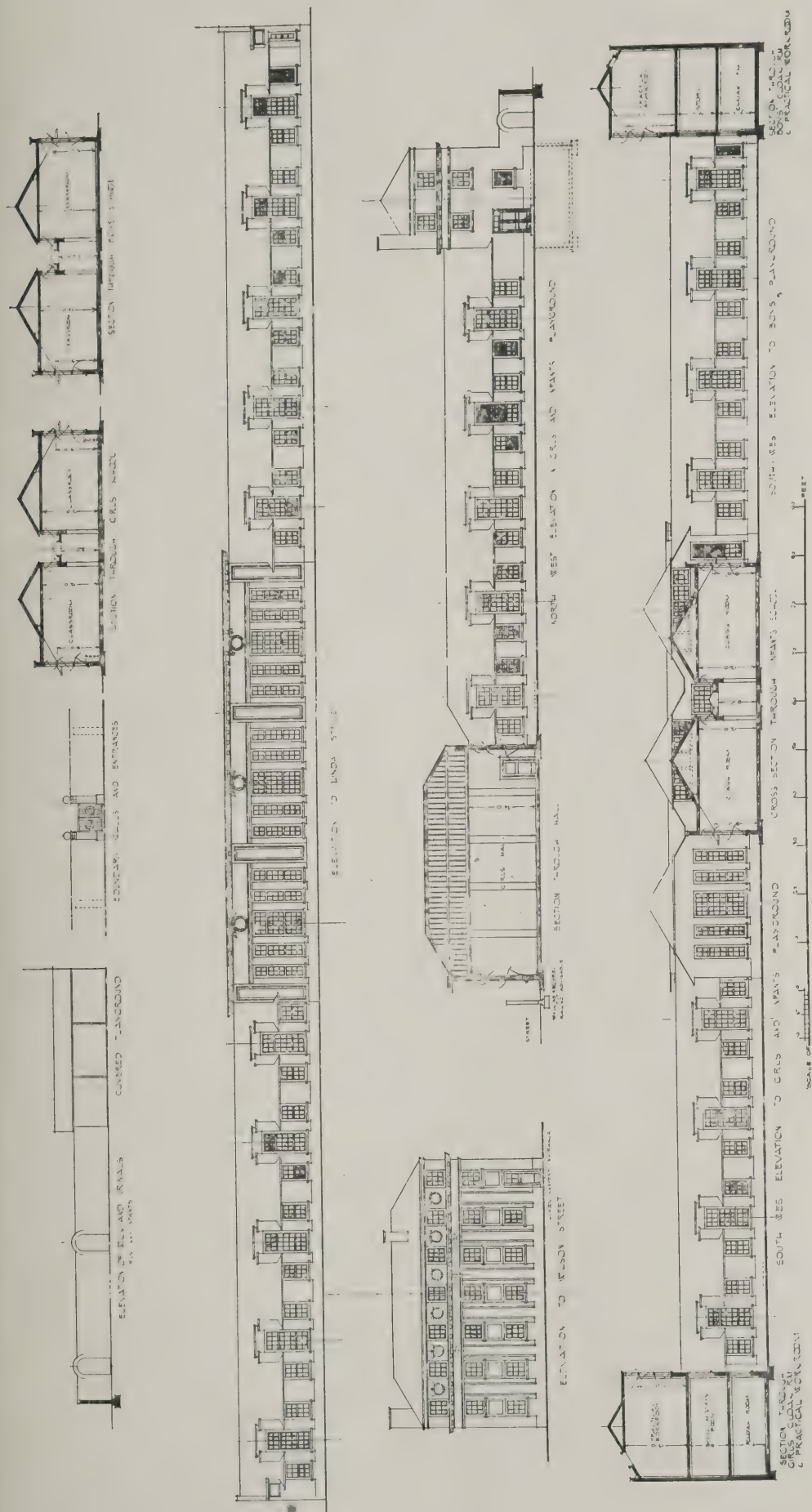
The cubic content of the main building, including the caretaker's flat, is 414,970 cubic feet, so that the work at 8d. per cub. ft. the cost would be £18,119 plus £300 for the basement: bringing the total for the main building to £14,132.



ELEMENTARY SCHOOL, LINDA STREET, BATTERSEA, LONDON, S.W.: DESIGN PLACED FIRST.

ARNOLD MITCHELL, F.R.I.B.A., ARCHITECT.





ELEMENTARY SCHOOL, LINDA STREET, BATTERSEA, LONDON, S.W.: DESIGN PLACED FIRST.

ARNOLD MITCHELL, F.R.I.B.A., ARCHITECT.



## SOME POSSIBILITIES IN VENTILATION.\*

BY A. H. BARKER, D.Sc.

AFTER discussing luminously and exhaustively the present position of the science of ventilation, the author proceeded to say that he did not think it possible for any impartial person who had critically studied the mass of experimental evidence in support of the view to avoid the conclusion that if it is not the whole truth it is at any rate very largely true that what Dr. Leonard Hill calls heat stagnation is responsible for many or, perhaps, most of the effects which have been accustomed to refer to as those of defective ventilation. The author, however, was equally sure that this fact cannot be the whole truth, that there was something in ventilation over and above the loss of heat and the suppression of smell. He was quite convinced that all air of the same temperature, pressure, humidity, and velocity had not the same effect on the human organism—that there was some quality other than temperature, humidity, and velocity in the air itself which makes some air different in effect from other air. What it is can at present only be conjectured. From experience he believed that air loses that quality, whatever it is, which with present knowledge we can only describe as crispness, when it passes over accumulated dirt or into close contact with metal or through a long underground pipe channel or when it is heated by hot surface, and that this quality of crispness is not merely a matter of temperature, humidity, smell, or velocity. The author thought we might provisionally accept the theory that temperature, humidity, and velocity of air in a room are points of very great importance in ventilation, of far greater importance, indeed, than its chemical composition, and that one of the chief reasons, but not the only reason, for this importance is that they determine jointly the rate of heat loss from the body. On this assumption, the possession of an instrument for measuring this effect raises at once the science of ventilation to a higher plane, for it enables us to measure the success of a scheme of ventilation objectively. Professor Hill has devised two instruments which have for their object the determination of the degree of joint influence of the surrounding conditions in abstracting heat from a surface as nearly as possible approximating to the condition of the skin of the body, but it would appear that the theory of his "katathermometer" needs to be worked out more fully than it has been up to the present.

After examining in detail the effect of different volumes of air in cooling one person, the author proceeded to consider the possible different ways of introducing the air.

It might be imagined to be introduced in a vertically upward direction, the fresh air coming in uniformly round the person's feet and being removed at the ceiling. That is pure upward ventilation. There are very few buildings ventilated in this manner. The best known example is the House of Commons. In spite of the enormous volumes of air passing through that chamber, the bad ventilation is notorious. It is clear that the effect of this method of introducing the air must

be to drive all the heat and all the vapour given off from a man's body up into his face, so that his face gets the hottest and most humid air, and his feet the coldest and driest. This condition is the exact opposite of a desirable state of things. The rate of loss of heat from the face and hands ought to be far greater than that from the feet. This would seem to indicate that, from this point of view, downward ventilation, as it is called, is superior, and it has certainly been the author's experience that well-designed systems of downward ventilation cause less trouble and complaint than those in which the direction is upwards.

But consider the effect of passing this quantity of air vertically in either direction over a man's body. Suppose each man occupies a floor-space of 6 sq. ft. Taking his own mean cross sectional area as 1 sq. ft., this leaves 5 sq. ft. for the passage of the air. The mean upward velocity of the air over this space will be about  $2\frac{1}{2}$  in. per second. The air in actual contact with his body being entangled with his clothes will have a considerably smaller velocity than the mean. The heat from the body may cause a local circuit similar to a vortex ring, but in any case the velocity of the air close to the body can never exceed a very few inches per second if the direction of the ventilation is either upwards or downwards. As this is absolutely insufficient, it would seem that neither pure upward nor pure downward ventilation was desirable. A vertical current does not admit of a sufficiently high rate of heat removal. It does not prevent the heat from stagnating round the body. The author believed also that some horizontal velocity of the air was necessary either to stimulate the nerves of the skin or for some other physiological purpose quite independently of the loss of heat from the body. The author was sure that a generally satisfactory draughtless ventilation is a contradiction in terms. If it be granted that a satisfactory feeling of freshness cannot be secured without some horizontal movement of the air over the face, the question at once arises—what movement of air is necessary? If we are engaged in the difficult task of ventilating big spaces where a large number of people are crowded and where the air is very hot and moist, what velocity of air are we to aim at? Practically, it is to be not greater than a velocity that all people will endure without complaining. If we produce a greater velocity than this, then sensitive persons will complain of draught and we shall find ourselves in trouble. We must therefore find by experiment what is the maximum velocity which people will endure. That question can only be decided by elaborate experiment. The author had devised some such experiments which he intended to carry out during this year on the effect of different air velocities under different conditions on human beings.

The right velocity would depend both on the temperature and the humidity of the air. For instance, a velocity of 18 in. per second, which for want of a better we may take as a provisional standard, would produce quite a different effect when the air was at 60 deg. and the humidity at 65 per cent. than when the temperature was at, say, 65 deg. and the humidity, say, at

80 per cent. To make our experiments complete we should have to develop equations showing the relation of the value of the three variables in terms of their effect on the sensations of a human being. For instance, possibly might be found that an increase of 10 per cent. or thereabouts in the relative humidity may approximately neutralise a drop in temperature of 1 deg. at or above the standard temperature.

The author had no doubt that experiments were carried out, it was found that all persons could endure a velocity of air possibly 6 in. per second at 65 deg. and 80 per cent. than at 60 deg. and 65 per cent. In determining, therefore, what is the desirable air velocity in a room, we must take account of the conditions of temperature and humidity.

Let us, then, assume the following for satisfactory ventilation so far as can be secured by the control of these conditions. That the air temperature be, say, 60 deg. F. and the humidity 65 per cent. and the general horizontal velocity should not be far from 18 in. per second. Present knowledge properly applied would enable us to ensure the first two of these conditions were maintained—that is to say, a competent person could design a plant which should give any desired supply of air at 60 deg. and 65 per cent. humidity. We have to inquire how far it is possible to secure the third condition, namely, that the horizontal velocity should not be far from 18 in. per second. In what way can this horizontal velocity be secured in practice?

We may imagine air driven over the audience from front to back or from side to front or from one side to the other. The author's own view was that the method would be from the front to the back. It is the view of Dr. Hill that whatever the ventilation may be it must not be uniform; that is to say, at one time the current is from front to back, at another time it ought to be reversed, and, perhaps, if possible, occasionally from side to side. The condition would, of course, greatly complicate the flues and apparatus necessary to produce the result, and it seemed to the author that as a practical proposition would be impossible to carry out at very great expense, but it also seemed that a current in one general direction which would in practice be somewhat variable in velocity and direction might provide by its variations for all the changes called for by Dr. Hill's requirements.

It will be clear that if all parts of a room are to be equally satisfactory, the habit this velocity must be maintained over the whole of the audience. It would do to maintain it over a certain part and keep the rest of the air stagnant, must have a general sweep of air over the whole. If there are local velocities of greater magnitude, then sensitive persons sitting in the path of these currents will complain of draught, if less of stuffiness.

In the open air there is a considerable difference of voltage between our heads and our feet. No such difference is observable in the interior of a room, which the walls form a practically continuous conductor. To determine

\* Extracts from a lecture delivered at University College, London, October 13, 1914.



there is anything in this we have stigated the question—what is the the sensations of a difference in between the head and the feet? If any effect it is possible that the cation of some large sheets of in-metal in the ceiling of a room reduce a good effect on the venti-

is it possible that the ionisation air has anything to do with the ce in feeling between fresh and 2. The author was inclined to be. it has.

modern theories of ventilation at first sight appear to render a reduction in the heat-cost of ing a room in reality have a very tendency in the opposite direction. crease to a very large extent the of plant, the expense of the plant 1, and the increase also in the cost ep. If they are to be carried into they will call for something like ormation in methods of building, y will certainly be regarded with isfavour by every architect who is ed in the interior appearance of a om.

Comparing the observations which to be necessary in order to get a e idea of the state of the ventila- any given room, the author said: st have the wet and dry katather- readings. We must know the e temperature of the air; and the adiant temperature is given by my ents. We should have readings in- the velocity of the air at all parts om when the room is full. We have also the analysis of the air, rticularly to know what amount of products exist in the room. We take the electrical readings and ne the degree of ionisation of the e room.

## REINFORCING A VIBRATING FLOOR.

Interesting example of the reinforc- a vibrating floor is given in our pory the "Engineering Record," York, from which the following n: Recently a brick building on Street, New York, was condemned out of the damage and danger ng from the operation of ten print- sses on the main floor which pro- vibrations extending into the t buildings. This was so serious e owner refused a renewal of his to the printer, who had been sh there for twenty years or more. Maurice Deutsch, consulting engineer, York, was retained and designed orcement which upon execution so reduced the vibrations as to render harmless and enabled the tenant to his lease, thereby saving him and ner from considerable loss.

single-piece floor beams extended the full transverse width of the g, with end bearings in the brick about 25 ft. apart in the clear and re bearing on a longitudinal 12 by wooden girder supported on wooden is in the cellar. The wooden girder adly checked, and the floor beam gs on it were made with loose s. Many of the floor beams had artly burned and seriously weakened, e floor had sagged badly.

of the heaviest presses occupied a n opposite the cellar stairway, where ds. of the floor beams were loosely

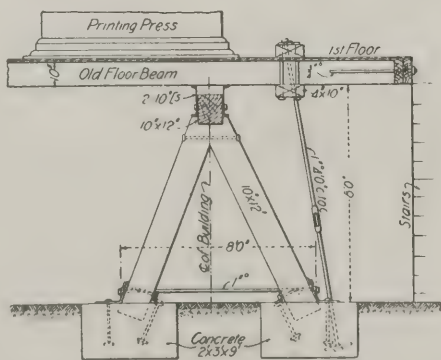
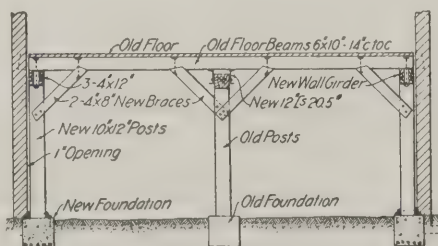
supported on an insufficient header beam. The presses were loosely connected to the floor, and moved as much as  $\frac{1}{4}$  in., while the entire floor moved about the same amount laterally. Its sagging and vibration caused a great deal of noise and squeaking and produced annoying vibrations in adjacent buildings.

After inspection the floor was pronounced unsafe, and there was believed to be danger of its collapse. The difficulties were remedied by reinforcing the centre longitudinal girder and supporting the floor on it and on additional supports, making it entirely independent of the wall supports.

The stairway header was reinforced by a heavier new 6 by 10 in. timber bolted to the centre longitudinal girder with  $\frac{3}{4}$  in. transverse rods, intended to reduce the lateral bending of the girder caused by the operation of the press. As this proved insufficient, the press was additionally supported by a pair of A-shaped vertical bents 4 ft. apart, set under it, engaging the longitudinal girder and supported on two new concrete footings, to which the press was also bolted by adjustable inclined rods. The footings were built in pits excavated to the elevation of the wall footings and lined with sheet piles driven 2 ft. deeper in order to insulate them more from the adjacent earth and prevent the direct transmission of vibrations to the side walls. These precautions practically stopped the vibration of this press.

A pair of channels was bolted to the centre longitudinal girder, projecting above its upper surface with the flanges bearing against the underside of the floor beams, and thus receiving the load of the latter directly, and eliminating the wooden wedges and "shims" previously used. The wall ends of the floor beams were supported, independent of their old wall bearings, on new longitudinal girders seated on vertical posts 10 ft. apart on centres with new concrete footings below the cellar-floor level. The floor beams were knee-braced to these columns and to the old centre columns, thus forming a rigid independent first-floor platform that does not touch the old walls and is supported on independent new foundations.

The changes have reduced the vibrations from about  $\frac{1}{2}$  in. to 1-64 in., so that the press-work is now carried on without annoyance to the tenants of this or of adjacent buildings.



## THE ARCHITECTS' WAR COMMITTEE REPORT PROGRESS.

A recent report of the Architects' War Committee (Mr. C. Stanley Peach, F.R.I.B.A., hon. secretary), states that, in response to the appeal sent out, the sum of £219 5s. for the Prince of Wales's Fund and £664 12s. for the General Fund for the assistance of architects in case of distress arising out of the war had been received up to October 7.

In reply to the letter offering the services of architects to the Government, the Committee have received a letter of thanks from the Right Hon. Joseph Pease, together with an intimation that the letter had been circulated among the Government Departments interested, and an acknowledgment has also been received from the War Office.

The Committee received a request from the adjutant of one of the new battalions of Lord Kitchener's Army to provide an architect to obtain tenders and to superintend the erection of huts, and the request was complied with within a few hours.

The War Committee were also requested to find picked mechanics for special service. The work was undertaken by the Architects' Volunteer Training Corps under the direction of the Architectural Association, and the whole of the men required were found within the time stipulated. Further calls also at very short notice were promptly met.

In this connection the officers of the Architects' Volunteer Training Corps desire to thank the architects and builders of London and the trade organisations for their prompt attention to the appeal, and for the energetic way in which they have all worked to assist the Government in finding the necessary men. All who helped are requested to accept this notice of thanks, as, in view of the magnitude of the work and the number of letters received, it is quite impossible to write individually.

### Scheme to Relieve Distress among Architects.

In conjunction with the Architects' Benevolent Society and representatives of the Architects' and Surveyors' Approved Society, the Benevolent Sub-Committee are considering a scheme for joint action for the relief of distress among architects which may arise in consequence of the war. A scheme for finding employment has been adopted in principle by the Sub-Committee. This scheme may be described shortly as a proposed inauguration of civic surveys of all the larger cities. The surveys are to cover the following ground: Archaeological, social and recreative, educational, hygienics, commercial, traffic, valuation. The idea is to provide complete data upon which to base town-planning schemes.

An additional scheme is also being prepared which is based on the original proposals made by the Society of Architects—the measurement of buildings of historical and architectural interest, etc.

The Selection Committee, in co-operation with the Allied Societies, are preparing lists of architects in all parts of the country competent to undertake works which, so far as can be foreseen, are likely to be required by the Government.

A circular letter has been sent to the Allied Societies asking them to draw up schemes for dealing with distress, etc., in their particular localities.

Up to the present time the Committee







## INQUIRIES ANSWERED.

### Constructing a Brick Oven.

(Rochester) writes: "A military oven of the moment is a quickly erected brick oven. Where can I get guidance for its construction?" The Journal for November 16, 1910, has an illustrated description of the oven that would probably meet the requirement. There are, of course, portable baking ovens lined with brick and having iron-plate sides, but these are limited as to size, and are not so well adapted for general baking as that which is an oven that was actually constructed for a private residence.

### Economisers' in Laundries.

AMOS (Battersea) writes: "In a laundry station for laundry equipment two economisers are required. What is an economiser?" Economisers are batteries of vertical pipes placed in the flue between the boiler and the chimney, and the water is pumped through these pipes to get rid of the hot gases that leave the boiler flues. See a short article on "Economisers in Laundries" in the Journal of May 12, 1909.

### German Architecture.

J. (Poole) writes: "What is the opinion about German architecture? Does it stand on its own among the architecture of nations, or is it as bad as current criticisms of it imply—such, for example, as the saying that the crime of the Louvain was black enough, but the Germans would commit a deeper crime if they built it up again; and that the act of retaliation in kind when we see Germany is arrant nonsense, the Germans having no buildings which they would not willingly see destroyed: in 'frightfulness' is fully manifested in its architecture." And yet, from articles on Schinkel which you published some time back, I derived the impression that his work was of a high rank, although I must say that illustrations of it left me cold. What is your opinion?"

The querist raises an exceedingly delicate question, which it would be difficult to answer at any time. To ask it at the present moment is to stimulate obloquy. Usually, the present writer could never see German architecture, old or new, and long ago formed the opinion that, in fact, the Germans seemed to be destitute of all artistic sense. What the war has revealed of the real character of the moving Teuton has intensified this opinion. Reading the character of the German in its architectural expression, one has felt disposed to call them essentially barbarous; and their conduct in the war has certainly not tended to destroy this impression, whatever else may have been destroyed. One's opinion of the Germans, however, cannot be wholly divested of prejudice. A neutral view, written during the war, is implied in an article on the Cologne Exhibition written for the Journal of the American Institute of Architects, who rather reluctantly allows that the exhibition did not appear to him. "Architecturally," he says, "the archaic entrance gate will give the visitor an uneasy feeling, if nothing more, and once inside . . . he will find his head. Indeed, the most natural thing to do at Cologne is to shake the head. One shakes it on entering; one

shakes it a thousand times as one traverses the interminable rooms and corridors of the buildings; and one shakes it on leaving." The exhibition was a riot of colour, and "one leaves this house [the *Farbenschau*] with the conviction that, without undergoing some profound mental changes, one could not sleep in any of the bedrooms, nor eat in the dining-room, nor read in the library." The whole thing is, he says, a "barbaric panoply." A dozen illustrations of as many buildings in the exhibition suggest that while their architects have a certain sense of symmetry, military in its meticulous and absurd repetitions and correspondences, any sense of beauty is wholly to seek.

## FOR KING AND COUNTRY.

### School of Architecture, University of Liverpool.

The following list of members of the School of Architecture, Liverpool University, who have joined the colours, has been carefully prepared, but any errors or omissions should be notified:

#### Serving with Commissions.

Adams, W. Naseby, Capt., 1st West Lancashire Brigade, R.F.A.  
Benjamin, L. A., Lt., Royal Garrison Artillery, West Lancashire Brigade.  
Bell, E. N. F., Lt., Royal Inniskilling Fusiliers.  
Bogle, J. M. L., Lt., The Lancashire (Fortress) Royal Engineers.  
Campbell, Duncan, Lt., 10th (Scottish) Battalion, King's Liverpool Regiment.  
Greenall, J. B., Lt., 9th Battalion, Cheshire Regiment.  
Joynson, L. C. B., Lt., 6th Battalion, Royal Staffordshire Regiment.  
Maddox, H. T. F., Lt., Welsh Fusiliers.  
Sykes, A. R., Lt. and Assistant Adjutant, 14th Battalion, King's Liverpool Regiment.  
Ravenscroft, Martin, Lt., 3rd West Lancashire Brigade, R.F.A.  
Todd, A. J. K., Lt., Second Dragoon Guards (Queen's Bays).  
Weekes, W. Barrett, Lt., Royal Engineers.

#### Serving in the Ranks.

Adams, L. K., 7th Battalion, King's Liverpool Regiment.  
Barnish, Leonard, C. Company, King's Liverpool Scottish Regiment.  
Burton, G. B., 6th Battalion, King's Liverpool Regiment.  
Cole, E. R. F., 3rd City Battalion, King's Liverpool Regiment.  
Davidson, G., 1st West Lancashire Field Ambulance, R.A.M.C.  
Davies, W. E., Artists Rifles (T. 28th County of London).  
Dod, H. A., 2nd City Battalion, King's Liverpool Regiment.  
Evans, A. F. F., 1st City Battalion, King's Liverpool Regiment.  
Faraday, S., 4th Cheshire (Territorial) Regiment.  
Glazebrook, F. H., 5th Battalion, King's Liverpool Regiment.  
Gonner, E. D. L., 10th (Scottish) Battalion, King's Liverpool Regiment.  
Harrington, C. A., 1st Canadian Grenadier Guards.  
Harris, P. C., B. Section, 3rd City of London, Field Ambulance R.A.M.C.  
Hill, G. N., 1st City Battalion, King's Liverpool Regiment.  
Jenkins, F., 1st West Lancashire Field Ambulance, R.A.M.C.  
Mason, H. C., 5th Battalion, East Surrey Regiment.  
Miller, B.A., 1st West Lancashire Field Ambulance, R.A.M.C.  
Pickles, J., 6th W. Yorkshire P.W.O. Regiment.  
Paterson, Claude, Royal Hampshire Regiment.  
Preston, E. C., D Company, Public Schools Battalion, Middlesex Regiment.  
Rutledge, Jas. C., 7th Reserve Battery, R.F.A., Fulwood Barracks.  
Williamson, F., R.N.V.R., 1st class signaller, H.M.S. Gibraltar.

### Manchester School of Technology.

The Manchester School of Technology has particulars of more than 550 students who were in attendance at the school during the academic year 1913-14, and who are now serving in various branches of His Majesty's Forces. With a view to the completion of a Roll of Honour, which shall also include the names of past students engaged upon military service, the Registrar will be glad to receive any authentic information.

## NEWS ITEMS.

### Surveyors' Institution.

The opening meeting of the sessions will be held on Monday, November 9, at 8 p.m., when the president, Mr. Howard Chatfield Clarke, will deliver an address.

### Estate of the late Mr. F. Dare Clapham.

The estate of the late Mr. F. Dare Clapham, F.R.I.B.A., who died in July last, aged forty-one, has been proved at £2,811 gross.

### Bequest to the Architects' Benevolent Society.

The late Mrs. Cates, wife of Arthur Cates, F.R.I.B.A., has by her will bequeathed £1,000 to the funds of the Architects' Benevolent Society.

### Death of Mr. Lewen Sharp.

Mr. Lewen Sharp, architect, who has died at a nursing home in Kensington, after a long illness, was a member of the London County Council from 1902 to 1908, when he was elected an alderman. He did good service on the Fire Brigade Committee. His best known building was the Apollo Theatre.

### An Announcement.

Messrs. Alex. Koch and Sons, 44, Doughty Street, London, W.C., Architects and Publishers ("Academy Architecture," "British Competitions," etc.), beg to state that they have been naturalised British subjects since 1891, and that they originally came from Zurich in Switzerland.

### The Royal Institute of British Architects: Prizes and Studentships, 1915, and the War.

At a meeting of the council on Monday, October 19, 1914, it was resolved to postpone the prizes and studentships competitions for 1915 until the year 1916. Further, that those candidates who, under the age limit, are eligible in 1915 shall be considered eligible for the prizes and studentships competitions for the year 1916.

### Speedy Work on an Immense Contract.

Messrs. E. Pollard and Co. recently received a gigantic order from the War Office for the supply of tables, trestles, and forms for use at the new camps. In order to execute the work within the required time the firm completely transformed their factory, and are now producing at the rate of fifteen articles per minute throughout the day. Some idea of the magnitude of this task will be gained when it is stated that the legs of the trestles alone are consuming 30,000 feet of timber per day, and that forty-five van loads of goods are being dispatched daily to the railway station.

### Building for Electric Supply Department, Sheffield.

An open competition is to be promoted at Sheffield for designs for a new building, comprising showroom, offices, and shops, to be erected for the Electric Supply Department on a site in Bow Street at a cost of about £40,000. The Electric Supply Committee of the Corporation, who have the matter in hand, suggest that the author of the selected design shall be employed to carry out the work and that premiums of £150, £100, and £50 shall be awarded to designs placed second, third, and fourth respectively, the designs to be assessed by the City Architect in conjunction with another.



## PROJECTED NEW WORKS.

*Baths, Darwen.*

The Darwen Corporation propose to rebuild the public baths in Church Street at a cost of £6,550.

*School, Glasgow.*

The Governors of the Hutchesons' Educational Trust have decided to erect a new boys' school on a site in Kingarth Street.

*Bridge, Co. Waterford.*

The Waterford County Council, Ireland, have requested the Treasury to sanction a loan of £9,000 for the construction of a bridge at Cunnigar.

*Housing, Newcastle.*

Newcastle City Council have approved a scheme for the erection of forty-four working-class dwellings in Walker Road district at a cost of £7,200.

*Housing, Christchurch.*

The Christchurch Town Council have decided to purchase land in Barrack Road as a site for the erection of houses for the working classes.

*Hospital, Great Driffield.*

An enquiry has been held into the application of the East Riding County Council to borrow £13,425 for the erection of an isolation hospital at Great Driffield.

*Housing Scheme, Hull.*

By a majority of one vote Hull City Council have adopted a housing scheme under which 252 houses are to be provided at a cost of £67,150 for building only.

*Town Hall, Middleton.*

A Local Government Board enquiry has been held into the application of the Middleton Corporation for power to borrow £18,000 for the erection of a town hall in Long Street.

*Housing, Rathmines.*

A Local Government Board inquiry has been held at Rathmines, Ireland, into the application by the urban council for power to borrow £10,600 for erecting houses for the working classes in Rathmines.

*Corporation Building, Sheffield.*

Sheffield City Council are considering a proposal to erect a five-storey building on the Corporation vacant site at Bow Street for the Electric Supply Department, at a cost of £42,000.

*Picture House, etc., Lincoln.*

Lincoln City Council have approved plans of a new picture house in the High Street for the Lincoln Picture House Co., Ltd., and of a temporary school in Sewell's Road.

*Sanatorium, Oldham.*

The Oldham Health Committee have instructed their architect to prepare plans and quantities in connection with the proposed erection of a new block at the Strinesdale Sanatorium at an estimated cost of £5,500.

*Housing, Dudley.*

After inspection of working-class housing conditions in Dudley a Local Government Board official reports that 300 to 400 additional houses are required. The Board have urged the Dudley Town Council to proceed with the work at once.

*Improvements, Yarmouth.*

A Local Government Board enquiry has been held at Yarmouth into applications made by the Council for leave to borrow

the following loans: £4,140 for swimming baths, £4,500 for lawn and seashore promenade, and £16,000 for the extension of the Marine Parade North to the road leading to Caister Railway Station.

*Housing, Hartlepool.*

Hartlepool Town Council have approved a second housing scheme, under which it is proposed to demolish 108 old houses in Cleveland Street and Ropery Lane and erect thirty-four modern buildings at an estimated cost of £15,000.

*100 Houses, Shirebrook.*

At a meeting of the Blackwell Rural Council, held at Mansfield, the Clerk reported that the Local Government Board had sanctioned the scheme for the erection of 100 houses at Shirebrook. The total cost will be £20,000.

*Housing Scheme, Kids Grove, Staffs.*

Kids Grove Urban Council have adopted the report of their Housing Committee, who recommended that the surveyor be instructed to prepare a scheme for the erection of not more than eighteen workmen's dwellings on the land at Hardingswood.

*Town Planning, Birmingham.*

The Town Planning Committee of the Birmingham City Council have presented a report recommending the council to approve a town planning scheme for North Yardley, and to authorise the committee to apply to the Local Government Board for permission to prepare a scheme for South Birmingham.

*Cottages, Mortlake.*

The Barnes and Mortlake District Council is to apply for sanction to borrow £7,700 for building cottages for workmen at Mortlake. It was agreed that in inviting tenders for the work the condition be laid down that 50 per cent. of local labour be employed, and the fair wage clause inserted in the agreement.

*Housing, Mansfield.*

Mansfield Town Council have adopted a recommendation of the Health Committee that forty houses be erected in blocks of four each, half of them to comprise living rooms, scullery, two bedrooms, and necessary out offices, and half of them living room, scullery, three bedrooms, etc. Sanction is to be asked to a loan of £6,425 for this work.

*Baths, etc., Deptford.*

Deptford Borough Council have decided to erect baths and washhouses in the North Ward at an approximate cost of £6,500 "with an allowance not exceeding 10 per cent., if considered necessary, owing to the increased cost of materials and labour consequent upon the war." Mr. A. W. S. Cross, F.R.I.B.A., has been appointed architect for the scheme.

*Infirmiry, Bradford.*

A Local Government Board enquiry has been held at Bradford into the application of Bradford Corporation for leave to borrow £100,000 for the purpose of acquiring the site and buildings of Bradford Royal Infirmary and making a capital contribution towards the provision of new infirmary accommodation. It was stated that the new infirmary would cost £200,000, towards which £80,000 had been promised.

*New Schools, Worthing.*

Worthing Education Committee have adopted the report of the Building and Sites Committee, which recommended to the Town Council the urgent necessity for the

provision of a new boys' and infants school at East Worthing, with accommodation for 600 scholars, a site to be found in the neighbourhood of Lyndhurst Road, which would be sufficiently large to accommodate a new girls' school at some future date if necessary. The report also recommended the provision of three additional rooms at the Ham Road mixed school.

*Building Schemes, Foleshill.*

A Local Government Board enquiry is to be held into the application by the Foleshill Rural District Council for permission to borrow £14,000 for the erection of workmen's dwellings at Foleshill, Bedworth.

The Board of Guardians have sanctioned the following plans: Ten houses for Magson and Son, Heath Road, Bedworth; seven houses for Mr. W. Johnson, L. Bulkington Lane, Bedworth; four houses for T. W. Roulston, King George Avenue, Foleshill.

*Cottages, Rotherham.*

The Housing Committee of the Rotherham Corporation report that there is a great demand for houses in Rotherham and that such demand is not being met by speculative building. The Committee have asked the Borough Engineer to prepare and submit to the Committee plans for 100 self-contained cottages in blocks of four, six, and eight, providing a living room and scullery, and two or three bedrooms, with a bathroom and w.c. for each house, and not more than twenty houses to the acre. By the scheme proposed the number of houses per acre would be increased. It is recommended that the proposals be laid before the Local Government Board and that the Treasury be approached for the terms for a loan.

*Housing, Kilsyth.*

Kilsyth Town Council have decided to deal with the housing problem on the detached cottage system, proposing to replace the tenant-proprietorship principle on the tenant-proprietorship principle. Competitive plans have been under consideration by the Property Committee, who selected one showing a house comprising kitchen, parlour, bedroom, bathroom, pantry, and coal cellar, with washhouse outside. This plan has met with the approval of the Local Government Board on its general principles, and is being forwarded to Sir Archibald Edmondson Bart., of Duntreath and Kilsyth, who has been approached for a grant towards building operations.

*Baths Development, Bath.*

The enlargement of the Bathing establishment at Bath is under consideration and a detailed recommendation of the matter has been presented to the Council for adoption. The area of the site to be covered by the new establishment is approximately 20,440 feet, and the proposed buildings would be of two storeys only. Rough sketch plans have been prepared by Mr. A. J. Taylor, Architect, for the Baths Committee, who estimates the cost of the buildings at £41,518, fittings at £1,454, and furnishing £1,454, a total of £44,426. To this must be added £1,500 for opening out and dealing with the Roman remains under the Kingston Baths site, and £5,000 for constructing the arcaded promenade, etc. For a new lounge at the Pump Room £2,000 for alterations at the Queen's Baths, and £1,000 for additional public plant (£5,000), making a total of £59,380. For contingencies, fees, etc., £7,900 added, and the site £25,759, making a total cost of £86,860.





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## ELECTRICAL NOTES.

*Electric Fires, Etc.*

Now is the time of the year when the makers of electric heaters, ovens and other devices for converting electrical into heat energy, announce the development of new patterns or improvements, and issue their new catalogues. One of the first makers to do this is Messrs. Belling and Co., of Derby Road, Edmonton. We have referred previously to their standard pattern, but more ornate modifications and types for special use have now been introduced, all of which are claimed to combine easy replacement of heating elements with heating efficiency. Among small patterns are the "Dainty" and the "Boudoir." The former is intended for heating cabins and other small rooms, and is mounted on four legs so as to lift it well off the floor. It is constructed of cast ornaments and sheet brass, and has a somewhat antique appearance. The four 500-watt elements are controlled by two flush tumbler switches. Another fire, actually entitled the "Cabin," has a lower rating and is more portable, remarks which apply also to that designated the "Office" pattern.

The "Boudoir" pattern is curved outwards like the old-fashioned gas fire with copper reflector. It is made in several designs, such as plain, special, Adam and Georgian. The finishes are in polished brass, satin brass, and old gilt. Each design has six firebars and three flush tumbler switches, so that two, four, or six bars can be switched on. The dimensions in all cases are 21 in. high by 12 in. wide. Metal reflectors and a ruby lamp add to the

efficiency as well as to the cheery effect of the fires.

The "Dog-grate" pattern is another useful fire, intended to stand in a fire-place, and, of course, the register may be closed or not. The apparatus is of cast-iron with suitable ornamentation, which, together with the two switch covers, are of polished brass. There are five standard fire-bars, so that the total rating is 2.5 kilowatts, and this can be subdivided by the switches into 1,000, 1,500 or 2,500 watts. In conclusion, the makers have also introduced a series of commercial patterns, strongly and plainly constructed for factories, offices, shops, tramcars, trains, etc., rated at from .5 to 3 kilowatts. In all cases, the firebars are connected direct across the electric supply, and can be removed or replaced rapidly by an unskilled person. They are, however, guaranteed for three years, which indicates that renewal is not of frequent occurrence.

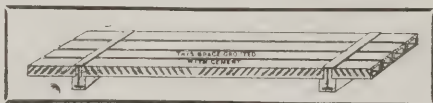
Other new electric fires have been introduced by the Jackson Electric Stove Co., Ltd., of 38, Blandford Street, W., who have previously confined themselves to, and derived their experience with, cooking apparatus. The firebars used for their fires are of similar design to those for their cookers, being of fireclay, hollow in front and wound with a nichrome ribbon, and are unaffected by grease or water at any temperature. Each firebar is rated at 500 watts, and as the fires are listed for 2, 2½ and 3 kilowatts, it follows that five firebars go to make up the standard 2½ kilowatt fire. The plainer designs are of cast-iron, in plain black, vitreous enamel or armour bright. In appearance they somewhat resemble an anthracite stove. The dimensions are 22 in. high by 14 in. wide

by 6 in. deep. A reflector of polished aluminium is fixed behind the firebars which glow with a bright red heat at the appearance of one mass of fire. A wire guard is fixed in front to protect from accidental contact with the fire. Other and more ornate designs are available, but standard firebars are used throughout in this make as well, and can be easily replaced. Rotary switches are employed instead of the more commonly employed tumbler switches.

A novel device in the cooking line, use on board ship, has been specially designed and constructed by Messrs. Crompton and Co., Ltd., of Salisbury House, London, Wall, E.C. The apparatus is essentially a steaming device, consists of a cast-iron oven measuring internally 24 in. by 18 in. by 24 in. fitted with five galvanised iron wire baskets, for steaming vegetable puddings. At an indication, it will hold up to 90 lbs. potatoes, depending on size. A water-evaporation boiler is fitted in the bottom of the oven, and a water tank on brackets at the side, connected to the water supply and fitted with a stopcock, serves to keep the water at a constant level in the boiler. The oven is mounted on legs with webbed feet, and convenient height for inspection of heating elements. It is provided with a heavy hinged iron door with india-rubber packing, and rendered absolutely airtight by a wheel handle operating a volute screw and locking bolts. A watertight switchboard, connected to the oven with wires in flexible metallic tubing, completes the outfit, which is rated at about 5 kilowatts.

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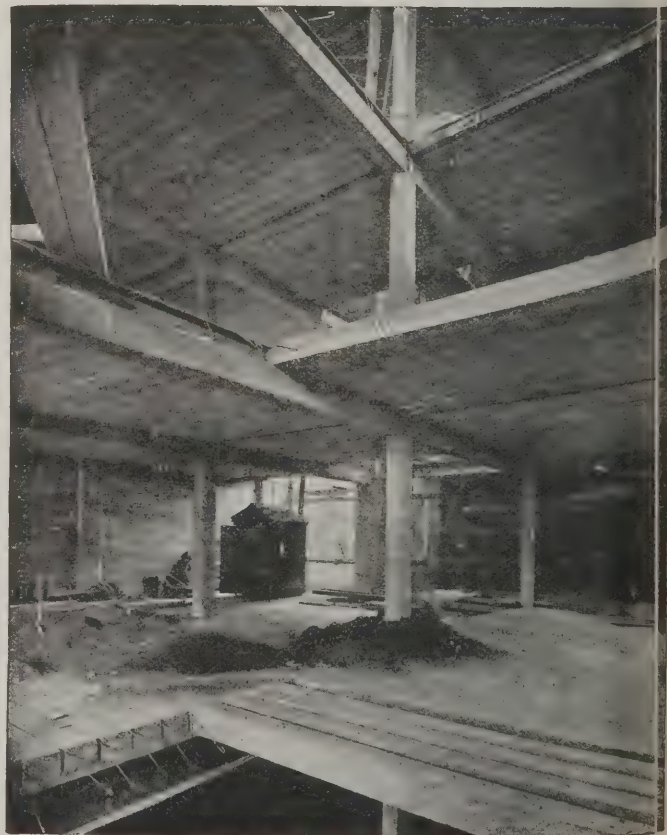
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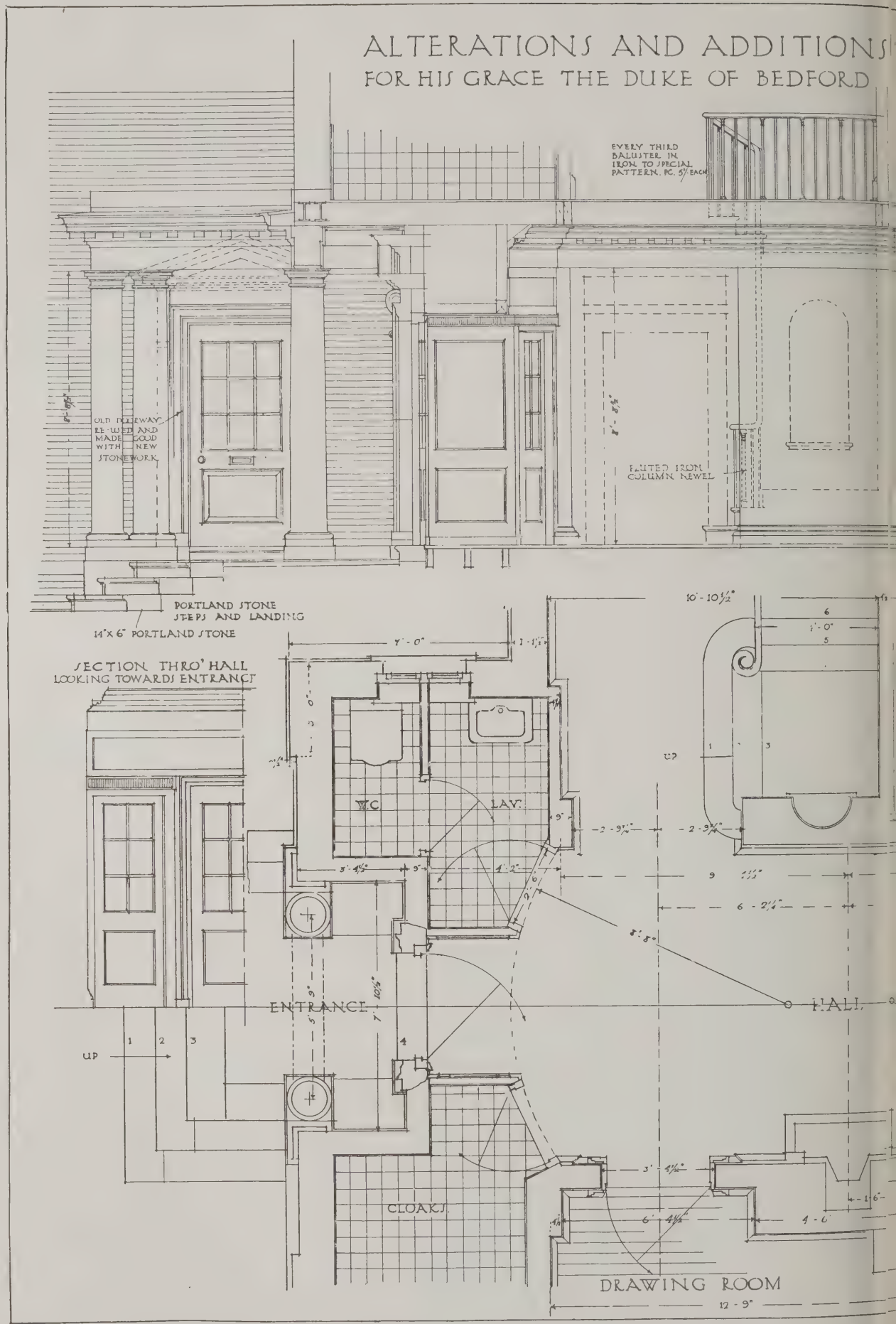
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J. L. DUC, ARCHITECT.









NINETEENTH-CENTURY FRENCH ARCHITECTURE. XI.—DETAIL OF CENTRAL GATES, PALAIS DE JUSTICE, PARIS.

J. L. DUC, ARCHITECT.

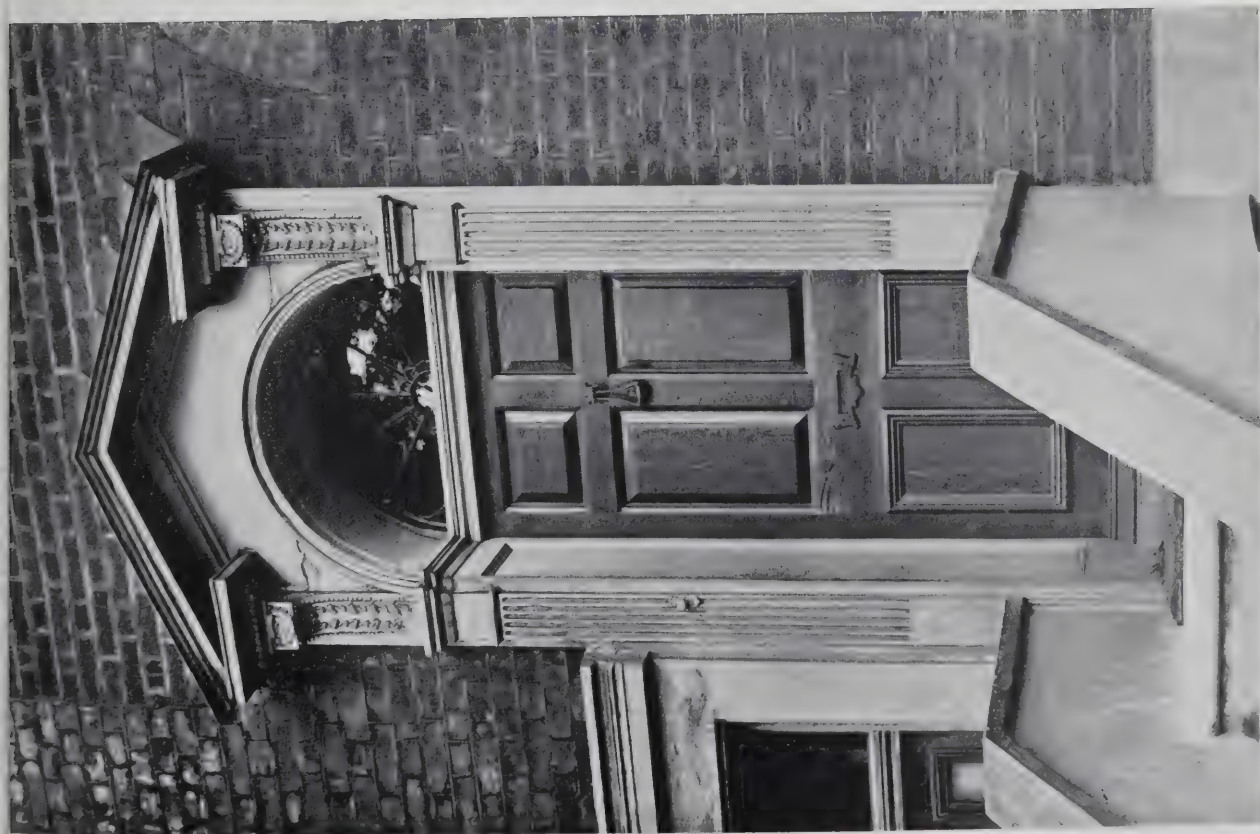








The Mall, Chiswick, W.



Kennington Road, S.E.

XXXII.—TWO LONDON DOORWAYS.

SMALL HOUSES OF THE LATE GEORGIAN PERIOD.









CURRENT ARCHITECTURE. LXXXVI.—PHENIX ASSURANCE BUILDING, ST. VINCENT STREET AND WEST NILE STREET, GLASGOW.  
CAMPBELL AND HISLOP, ARCHITECTS.









CURRENT ARCHITECTURE. LXXXVII.—PHOENIX ASSURANCE BUILDING, GLASGOW: DETAIL OF FAÇADE TO ST. VINCENT STREET.

CAMPBELL AND HISLOP, ARCHITECTS.



1871  
of the  
1871



# THE ARCHITECTS' & BUILDERS' JOURNAL.

Wednesday, November 4, 1914.

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No. 109.



(From Piranesi.)



# THE ARCHITECTS' & BUILDERS' JOURNAL.

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VOLUME 40. No. 103.

## EDITORIAL.

BUILDING societies do not commonly build, but they are the cause of a good deal of building by others; and the financial position of such societies, taking them in the lump, may be pretty safely regarded as a fair index of the prosperity, or otherwise, of a large and an important section of the community, and of the condition of a considerable element in the property market. Members of building societies usually derive their incomes directly from industrial pursuits, whether as owners or as employees, and consequently their power to invest is a measure of industrial progress or retrogression. At Leeds, and at some other towns in the North and in the Midlands, at all events, this barometer does not, at the moment, register depression. Two Leeds building societies that have recently issued their annual reports show that the war has had hardly the slightest effect on their operations—in fact, the accounts of one of them show a “record year” of success. This means, at all events, that the investors in small property in the north are of unabated confidence in our country's powers of endurance and recuperation, and their excellent example of continuing “to put their money into bricks and mortar” should encourage the others. Very appropriately, the annual meeting of this flourishing society was held in the Philosophical Hall—an old-fashioned name connoting a not yet extinct British virtue.

“A strike is out of the question now,” writes “Workman,” in a letter to the editor of a Weymouth newspaper, in which such an occurrence among carpenters in the district which it represents had been reported. There had been a dispute, it seems, but that was settled in a few minutes at a joint conference. How the quarrel arose is of no importance outside its area. What is noteworthy is the spirit of “Workman's” repudiation. He is indignant at the bare idea of employers and workmen fighting each other during the present crisis; “they ought,” he adds, “to help each other in every possible way.” So ought they, surely, at all times; but it needed a war to teach them thus much of wisdom and good citizenship. The war is revising most of our notions, and may yet leave upon us an abiding impression of the seemliness and virtue of national solidarity. All classes are feeling as never before the bond of blood, and one good result of the war should be the clearer recognition of mutual interests not only between employer and employed, but between professional man and tradesman, and between the various professions, among whom contact is not necessarily collision. Antagonism must give way to co-operation all round.

Llandudno Council have risen superior to prejudice by deciding to permit cavity walls for the sixteen working-class dwellings which they are about to erect.

The suggestion, however, came from the Local Government Board, who have pointed out to the Council the pecuniary advantage of reducing the thickness of the wall from fourteen inches to eleven inches, and the cost will involve an amendment of the existing by-law. A two-and-a-quarter-inch cavity is bridged at the third course of brickwork with heavy galvanised steel ties, the saving effected in the construction of a house can hardly be considerable, although, multiplied by the number of houses in a large scheme it is worth taking into account, even when allowance is made for the provision of lead-coverings built in between the inner and outer casings to form a gutter to throw off any accumulation of water. Properly constructed cavity walls hardly come out less costly than those which are built solid, and the chief reason for adopting them is that they afford a better protection against draught and dampness, while the air-space between the casings makes the cavity wall less sensitive to changes of temperature. When these advantages are the object, the cavity wall may be all that is admirable, but it will not be so cheap. If, on the other hand, cheapness is the object, the cavity wall may all too easily degenerate into a hollow fraud. Before amending their by-law, Llandudno Council, or any other authority to whom the Local Government Board is making similar representations, should examine into this matter with the utmost care.

It is confidently anticipated that, early in the New Year, “a start will be made with the magnificent new buildings which is to form an extension of the University of Bristol.” This scheme has been made possible by the generosity of Messrs. G. A. and H. H. Wills, and their munificence should inspire other wealthy citizens to emulation. Of specially designed memorials there will be ultimately no lack; but the prouder monument to the spirit of the nation could hardly be set up than a university built while the nation is in the throes of a great war? And what a deliciously ironical comment on the professed attempt to “force German *Kultur* upon an unwilling world—while the Huns are destroying cathedrals and libraries, we go on building a cathedral, libraries, and a university in contempt of all threats of Zeppelin bombs. Llandudno should really be too proud to allow itself to be out-blazoned by Bristol.

A noble and stately London University building begun during war-time would be a magnificent symbol of calmness, courage, and resource, and of unflinching confidence in our Empire's future, manifested in the metropolis of that Empire. Failing private munificence, our wealthy City companies should combine to do themselves this signal honour. London University



s from the various affiliated colleges have led splendidly to the call to arms, and the of a home for their *alma mater* would be a recognition and memorial of their patriotism lantry.

he tower of St. Dunstan's-in-the-West, Fleet is now visibly under repair, there have been, ly, references to it by busy City men as f Wren's beautiful towers." Of course, Wren thing to do with it. The rather fine open- d lantern dates back no later than the 'thirties, hitect being Charles Shaw. To a writer in the *Mall Gazette* the lantern recalls that on Boston but Shaw seems to have got his inspiration e Church of All Saints, York, where the term n" had a peculiar significance, the tower carry- lighted beacon for the guidance of travellers i the wild woodlands northward of York. Clark- anfield drew the tower of St. Dunstan's-in-the- n one of his illustrations to Dickens's "The .". In 1900 there was a great outcry against the g of a faculty for building over the westward urt of the church, but the deed was done.

Dunstan's-in-the-East, away towards Thames and Tower Street, is Wren's work, and its able tower, with a spire carried upon the inter- of two arches, has given rise to the ridiculous that the design was made by Wren's daughter, t the idea from her scissors-case! Newcastle lral has a similar spire, and the type is commonly ed as being distinctively northern, but is said to xisted in the old church of St. Mary-le-Bow, side. If for no other reason, the tower of St. n's-in-the-East would be interesting as being Wren's few and unfortunate essays in Gothic; ry Aldermay and St. Michael's, Cornhill, being notable examples, to say nothing of the twin of Westminster Abbey. The tower of St. el's is a pretty close copy of that of Magdalen e, Oxford, and is one of Wren's latest works. Sir scott restored and decorated this church in 1860.

Cloth Fair Reconstruction and Improvement e, which is to be carried out at an expense of o, was on October 27 the subject of a Local ment Board inquiry, and there is not the st prospect that the Board will raise any objec- the proposal to demolish the houses that are all that remain to us of sixteenth-century tic work in London. The case for preservation ooked hopeful; and Mr. Howard Ruff, secretary Royal Society of St. George, who at the inquiry ented that society, the Society for the Protection cient Buildings, and the Antiquarian Society, l to recognise that at this stage protest could o tangible effect, whatever its moral value might .remembering Crosby Hall, it was impossible to t the Corporation of the City of London of any f emotional regard for the much less interesting . in Cloth Fair. In defending themselves from rge of vandalism—"Germanic," one gentleman it, though for our part we could not find it in our to fling such a bone at a naturalised Dachshund Corporation have pleaded the impossibility of ing these old houses sanitary; but we all know ell that the modern sanitary engineer is not so baffled. The real point is that the work would een unremunerative, and the Corporation could e their way clear for the sacrifice to sentiment of opportunity to convert a sixteenth-century slum to a commercial Golconda. No other view could een expected of them; but they might have been about it.

There is a growing conviction that there is some- thing more than mere sensation-mongering in the gun- emplacement scare. It appears, from the answer to a question asked by Mr. Reynolds at last week's meeting of the London County Council, that the Council have made an investigation to ascertain whether any buildings erected of recent years by or for Ger- mans or Austrians had been provided with founda- tions of excessive strength, and that, as a result of that investigation, facts concerning certain buildings which were in strategic positions had been communicated to the military authorities.

Among the more or less incredible *ana* of the subject is a story from Lassigny. Some distance from the town was a château that belonged to one of the attachés of a German Embassy. This gentleman developed a perfect passion for lawn-tennis. played on hard courts, which were dotted all over his extensive park. When, after severe fighting, Lassigny was occupied by the French, they visited this château, and found that the "tennis-courts" disguised so many rein- forced-concrete platforms destined for the support of heavy artillery. But it is the factory trick that is most favoured in the recitals, and a story from St. Mihiel is but one of many. Here, two years ago, it is said, a German chemical manufacturing company bought a site, laid down a large foundation of concrete, and then ceased operations on the plea of want of capital.

All this looks very much like romance, and whether or not it is grim reality remains to be proved. The "mysterious tunnels" which have been discovered at Noon Hill, between Hitchin and Luton, come into the same category. These tunnels—there are three of them, and one is fifty yards long, six feet high, and four feet wide—were, it is recalled, excavated some eight years ago, to the orders of two Germans, whose object in making these extensive burrowings may per- haps be inferred from the use that the German troops have made of similar tunnels and caves in France. To the objection that the Germans would hardly be so foolish as to provide us with a series of fortifications that would serve us in good stead in case of invasion, it may be answered that we were supposed to be unaware of their existence—that they were charted for a well- matured German plan of campaign, not for our own. With their usual touching simplicity, the Germans imagined that we should never discover them until German cannon awakened us to their existence! The one clear and unquestionable issue is the splendid ver- satility of reinforced concrete. That these stout weight-bearing floors and roofs happen also to suggest gun-platforms may be purely fortuitous.

## A READING ROOM FOR SUBSCRIBERS.

NOW that we are installed in our new premises at 27-29, Tothill Street, Westminster—almost opposite our former premises in Caxton House—we are able to carry out an idea which has been in our mind for some time past—namely, to provide a Reading Room where all our publications can be consulted, and all information concerning them obtained. This Reading Room, which is comfortably furnished and provided with writing materials, may also be used by subscribers as a rendezvous for archi- tects or others with whom they have business. The room is on the ground floor of the building, with a separate entrance from Tothill Street, and we hope that it may prove of service especially to provincial subscribers when in London.



## HERE AND THERE.

A REPRESENTATIVE of one of the London dailies with whom I was seated at table was bemoaning the poverty of ideas among modern architects, and in the "If I were King" manner he threw off some notions in building which would make excellent headlines for the public, even though the architect in practice might snigger at them. Certainly the occasion was one that offered an admirable chance for the superior person to shatter the seeming knowledge that arose out of depths of ignorance, yet the essential point was sound enough. We can never overestimate the worth of the big idea in architecture. It is the *rara avis*, and we should be ever ready to welcome it. Two great qualities go hand and hand in this matter—imagination and adventure. It is easy to point out deficiencies in the finished work; without doubt every man who has carried out a great idea in architecture could himself improve on his first venture: but that in no way detracts from the worth of the venture itself.

\* \* \* \*

It was musing in this fashion the other day that led me to pause in the Reading Room of the British Museum and to look around at the great apartment, gloriously covered by a dome that is exceeded in size by only one other. We will give Sydney Smirke the credit for this mighty conception, even though, so 'tis said, it was handed on to him from another. This other, the then Librarian, Sir Antonio Panizzi, shall have enough credit for conceiving the idea that the empty square in the midst of the ranges of buildings was the very place in which to put the Library, if only it could be achieved satisfactorily: which leaves Sydney Smirke with the credit for the work itself. And a most commanding achievement it is. Here, indeed, is an Idea, and though doubtless the Pantheon had suggested it, let us accord all honour to the English architect who gave us this great Reading Room. It is a place that strikes the imagination. The dome is no less than 140 ft. in diameter—just 2 ft. 6 in. short of the greatest of Roman temples. On its floor a little community of workers are absorbed with books, but they seem hardly of any account—just dwarfs under the structure that rises over them to a height of 106 ft. Books are everywhere, tiers and tiers around the drum wall, giving a sense of illimitable knowledge. And no less effective is the manner of lighting this large space. Two-light windows extend around at the springing level, and between them rise the ribs of the iron frame of the dome. The windows are Lombardic—strange, indeed, in a group of buildings that is, above all things, Greek in character, and it is just such features as these that offer points for criticism. But, when all is said, it is mere criticism of detail: the bigness of the general idea is not affected by it. Throughout the Museum indeed there is the same grand scale, and as one passes out under the portico, with its massive columns, 5 ft. in diameter and 45 ft. high, the truth is realised that there is immense satisfaction in building like the giants. As Cockerell once said: "Since the days of Trajan or Hadrian no such stones have been used as those employed at the British Museum, the front of which is formed of blocks weighing from five to nine tons each. Even St. Paul's contains no approach to these magnitudes."

\* \* \* \*

Writing week by week in these columns on a variety of subjects, it is only to be expected that I shall express views which some readers cannot agree with; and from such readers I shall always be glad to receive letters taking up points that are open to criticism. A letter of the kind reaches me this week, concerning my remarks about cast iron and wrought iron. I had written: "The truth is, you cannot get in a cast-iron

railing or a cast-iron grille the quality which is in wrought work"—but my correspondent says "you can get a much better one; you can get smaller and more delicate detail"; an assertion which would seem to be in complete contradiction of my own. Yet when we come to the matter it will be found that my correspondent has two different things in mind. I am thinking of that pleasant smith work which Tijou brought into this country, and which formed the basis for the ironwork that was done throughout the eighteenth century, while my correspondent is thinking of railings and grilles having rectangular frames, borders made up of a Greek fret or interlacing lines, and ovals, and perhaps a graceful filling of scrolls, all of which look so well when outlined against a background. There was a time, not so long ago, when cast iron work was regarded as an architectural solecism. But those days are past, and we now recognise now that this is craft work as legitimate as any other. It was the appalling Victorian example that brought cast iron into disrepute. Nevertheless, when all is said, I will still contend that, grille for grille or railing for railing, the work wrought by hand has greater attraction. The chief merit of cast iron is in its cost, for it is obvious, for instance, that a set of balcony railings of any elaborate character could be obtained at far less expense in cast iron than if they were each wrought separately. The best modern work combines the two, cast iron for the framework and mechanical repetitions, and wrought iron for the decorative mental filling or enrichment. Many of the designs of Cottingham would be better executed in this fashion than by casting alone. They would then be free from some of the clumsiness that mars the work as cast out.

\* \* \* \*

Once more the Flemings have come to our shores, though the force that has driven them from their land is strangely different from that of Tudor times. And the results will be different. So far at least the future of architecture in Europe is concerned, we are likely to develop towards cosmopolitanism rather than to each evolve a new manner of building or of furniture and decoration out of the mingling influences. History will not repeat itself in this particular, the railway, the newspaper, the popular tour, having left few survivals for anyone. How different was the former case! The new crafts in building that came to us when the Flemings first landed in the Eastern Counties, and even more pronounced, the altered fashions that were heralded by the Huguenots from France in the seventeenth century. That famous Revocation of the Edict of Nantes brought 40,000 families of weavers and textile workers to London between 1670 and 1700, and, with them, one of the most beautiful arts of France. It seems incredible that a royal enactment cancelling religious toleration in another country should have entirely altered the furnishing of our houses. Yet we know this to be the fact. The work of chairs on which so much decoration had formerly been wrought disappeared largely from the room when the new velvets and the fashionable needlework needed space for display. In due course this manner changed with the rest, the furniture makers of Charles Anne's reign having to meet the requirements of the great estate, the rising middle class, but it is opportune at this time to emphasise how altered is the condition of things to-day. We have hardly ever evolved anything essentially our own in the arts of architecture, furniture, and decoration. France, Italy, Holland, China, Japan—all these have been the sources of our inspiration in matters of art. By way of exchange we have taught them how to colonise, how to give freedom of motion, how to make machinery, to play football, to play golf, and to share the delights of rosbif and five o'clock tea.

UBIQUITY



## ARCHITECTURE AND THE WAR: SOME CASUAL IMPRESSIONS.

the casual observer, architecture would seem to have little to do with military tactics. This idea, however, is quite wrong, as may be easily shown. Kings may conceivably play a very important part in the disposition of military forces; and architectural details, even, may have considerable influence on the conduct of a campaign.

That the military man is consciously troubled by architectural styles. He cares not whether a building is merely Renaissance or Neo-Grec—whether it is of the Rococo variety or based on the Egyptian model. No; his interest in architecture is of another sort. He regards a building purely from a military point of view.

Seeing a church, for example, he will first want to know whether it possesses a tower and a steeple. If it has the former, then he will mark it down as relatively useless in connection with military operations, for observations cannot be conveniently made from a steeple alone. Accordingly, a church with a tower always finds favour in the sight of the military surveyor. Should it also be capacious, and have a flat roof, its value (again from the military point of view) will be appreciably increased; for may it not, on the one hand, suit the purpose of a Red Cross Hospital, or, on the other, be a helpful means of defence in a siege?

We are thus able to see how architectural style may influence military operations. It may reasonably be taken as a general rule that "Classic" buildings are flat-roofed and "Gothic" buildings gabled; and, in the district and particular value of each, and, also, the military man's unconscious interest in architectural style.

The architect will not feel highly flattered by this utilitarian estimate of his art, and still less in the interests of a successful campaign, some of his most cherished works are marked down for destruction. For it may happen that a building will be situated as to form excellent cover to the enemy, and he be successful in his attack, and therefore it is possibly scheduled for demolition should the necessity arise.

Many hundreds of architects, architects' assistants, and others connected with the profession are now engaged with either Lord Kitchener's Army or the Royal Engineers; and it would be extremely interesting to know of any experiences that they may have had in connection with architecture. To the writer, for instance, it is a great pleasure to encounter in his own company a gardener who, during service with a number of prominent English families, had had personal intercourse with many well-known architects, including Messrs. John Lubbock and Billerey, Messrs. Wratten and Grey, Mr. Frank Chesterton, and others. It is by such minor incidents that one's interest in the Mistress of the House is constantly being refreshed.

In other ways one may find an architectural interest in military training. A route march, for example, is a splendid opportunity for the study of both ancient and modern domestic architecture, more especially if the lucky recruit happens to be stationed in a wonderful county as Surrey.

It is astonishing how tolerant one becomes of things which one formerly held to be taboo. The "bird-cage" window motif, for instance, which was formerly employed by Norman Shaw—notably in a house at Chelsea Embankment—had always been condemned by the writer as a particularly objectionable feature; but coming unexpectedly upon it in a country where his earlier convictions were badly shaken. This "man Shaw bird-cage" seemed to be not only not so bad, but logical. Can it be, as Mr. March Phillipps

has constantly maintained, that the professional outlook is hopelessly narrow—that we are too tightly shackled by rules and conventions?

If the above very minor instance is at all typical, what sort of a style of architecture may we expect when our young architects return from the war? Their ideas, especially if they see service on the Continent, are likely to become hopelessly confused, and it will be a long time before they return (if ever) to their pre-war methods of architectural design. Can it be that, in addition to the other changes which are bound to follow, the war is destined to produce a new style of architecture?

G. J. H.

## THE PLATES.

*Cunard Building, Cockspur Street. London.*

THE extension and alteration of the Cunard Steamship Company's premises in Cockspur Street, London, S.W., by Messrs. Mewès and Davis, has resulted in a building of superlative merit, one which gives hope for modern architecture. It is most elegant in its proportions, and the detail throughout displays the greatest refinement. The work involved the inclusion of a building on the east side, in order to provide more accommodation for the company. In carrying out this work the original design of the façade was continued, another window bay being added, the main cornice continued across, and the shop front extended. For the latter a new design was prepared. Formerly there was a single large window on the ground floor, framed in with stone. This has given place to two windows, with an entrance on the west side, the divisions being marked by green marble pilasters, and the fascia executed in white marble. The entablature is a perfect piece of detail, and the design of the metalwork excellent in every respect. Messrs. Holloway Bros. were the general contractors. The marble-work was executed by Messrs. J. Whitehead and Sons, Ltd.; the bronze-work by Messrs. Hart, Son, Peard, and Co., Ltd.; the electric-lighting fittings by Messrs. Higgins and Griffiths; and lifts by the Otis Elevator Co., Ltd. The decorative work on the ground floor, not yet complete, is being carried out by Messrs. George Jackson and Sons, Ltd.

*French Empire Footstool.*

This footstool has a theatrical appearance, as though it might be part of the "properties" for a Napoleonic play. It is stamped with the same character as the chairs which have been previously illustrated, and, like them, is finished with what appears to be gesso enrichment, gilt, on a white painted ground.

*Design for a Golf Club House.*

This proclaims the influence of the methods adopted in American drawing-offices, every part being detailed and dimensioned. The design is well worked out, and is full of vigour. Mr. Jenkins is a student at the School of Architecture of Liverpool University.

*Huntercombe Place, Henley-on-Thames.*

For the hall, the staircase, and the billiard-room of this house oak has been used, the floors being of jarrah, which takes a fine polish and is attractive in colour. Mr. Oswald P. Milne, F.R.I.B.A., is the architect.

*House at Ealing.*

The working drawing and the photograph show a house at Ealing, on the top of Hanger Hill, which has just been completed from designs by Messrs. Robert Atkinson and George L. Alexander, A.A.R.I.B.A. (Mr. Atkinson, it will be remembered, is the headmaster of the Architectural Association School of Architecture). The work is characteristic of what is being done at the present day by architects who seek to combine a formal classical feeling with individual freedom in domestic work.



## SOCIETIES AND INSTITUTIONS.

*Architectural Association and the War.*

The opening sessional meeting of the Architectural Association was held at 18, Tufton Street, Westminster, on October 26.

Mr. H. Austen Hall, the acting-president, presided in the absence of the president, Mr. Maurice Webb, who is in training with his regiment at Chatham. Mr. Hall, in opening the meeting, said Mr. Webb's fine example had been followed by some 200 of their members. He read an extract from a letter from the president, in which it was stated that all the A.A. men in camp were fit and well and hoped that the annual dinner this year would be held in Berlin!

Professor Selwyn Image read a paper on "Art and the War." He characterised the struggle as a war literally and simply of ideas, of bedrock principles as to what human civilisation means, and went on to declare that the modern German mind and character had been debauched and disgraced by the Prussian mind and character, which itself was best described as an insatiable craving for dominance over fellow-men, and the acceptance of the doctrine that might was right. What, he asked, had all this to do with art? Little or nothing if art were regarded merely as an amusement or as a means of livelihood for certain professional men. But if they regarded art as a permanent universal interest of the human race the case was different. He thought the war had shown that people did regard art as something of permanent value, because, with the terror at their doors, they had waited to remove their artistic treasures to safety. The war had already played sad havoc with priceless treasures of art; they had been utterly destroyed and could never be replaced. Yet it was some consolation to remember that the effect of war upon art had never been wholly bad, on occasions, indeed, it had been the reverse. Some of the finest art the world had ever seen had been wrought amid surroundings far from peaceful. Much of the great art of Greece and Italy, and of the Gothic builders, was accomplished in times of strife. Michael Angelo produced masterpieces while engaged in defending Florence from the invasion of the infamous Alessandro. We need not, therefore, despair of art because war was upon us. There had, in fact, been overmuch frivolity and licence in recent art, and we needed a cleansing fire, a sharp awakening, to lead us to readjust our estimate of things. A war for the sake of fundamental ideas must have a salutary effect upon art. He looked forward to the end and the results of this war with no doubt and no anxiety. It was a bitter discipline we were going through, and it would probably be a long discipline, but the day would come when men, looking back to August 5, 1914, would say not, "Then the worst came upon us," but "Then the best came upon us"; for it was good for us and for the world at large to have been recalled to a clear sense of the things that really mattered in life.

Mr. Curtis Green, in proposing a vote of thanks to Professor Image, said they were heartily grateful to their president, Mr. Webb, for the example he had set in joining Lord Kitchener's army. The response of the A.A. to the call of the colours had been splendid.

Sir Aston Webb seconded the vote of thanks. He thought that art and war had a very great affinity. It had often been

pointed out that art had always flourished most when nations were at war. During the revolution in Paris a committee of artists met and prepared a plan for the beautification of the city, and some of the suggestions then made were subsequently carried into effect. It seemed to him that we might employ our minds at this terrible time in some such way. The protection that art afforded to buildings and to cities in time of war was shown in the fact that even the Germans had been forced by pressure of opinion to spare the cathedral at Antwerp.

Mr. W. A. Pite and others also spoke.

*Society of Architects.*

The first meeting of the session was held at 28, Bedford Square, on October 22. The election of officers was announced as follows: President, E. C. P. Monson, F.R.I.B.A., F.S.I.; Vice-Presidents, A. Alban H. Scott, M.R.S.I., and Edwin J. Sadgrove, F.R.I.B.A.; Past-Presidents, Albert E. Pridmore, F.S.I., and Percy B. Tubbs, F.R.I.B.A.; Honorary Secretary, George H. Paine; Honorary Treasurer, P. M. Beaumont, A.M.I.C.E.; Honorary Librarian, Gilbert A. Harrison; Members of Council, E. J. Partridge, Colonel F. S. Leslie, R.E., J. Herbert Pearson, Henry Adams, M.I.C.E., F.S.I., R. A. Jack, T. Stewart Inglis, B. D. Cancellor, Herbert W. Matthews, Herbert O. Ellis, Noel D. Sheffield, R. Cecil Davies, Alfred J. Taylor, Thomas Wallis, Charles E. Salmon, Harry Gill, B. R. Tucker, Henry R. Cooper, F. C. Moscrop-Young. The chairman then invested the newly elected president, Mr. E. C. P. Monson, with the badge of office, making reference to his long service on the Council of the Society, and also to the service he had rendered to his country as an officer of the Territorial Forces. Mr. G. A. T. Middleton, A.R.I.B.A., past vice-president, gave a lantern lecture on "Some Belgian Towns Affected by the War." He showed a number of views of the damage done by the German bombardment, these slides having been specially made by Mr. George Trotman from photographs lent by the Central News Agency and the "Glasgow Record." The room was well filled by members and their friends, amongst whom were a number of Belgians, some of whom had taken an active part in the recent defence of Antwerp. Several Belgian architects were also present, including Mr. Alfred Portieljje, the secretary of the Royal Society of Architects, of Antwerp. The lecturer aroused the interest and sympathy of his audience by his method of handling the subject, and the contrasts he drew between such places as Louvain, Malines, Tournai, and others, as they were before and since their occupation by the enemy. Mr. Middleton confined his observations chiefly to Belgium, but later in the evening, at the chairman's request, showed a number of slides illustrating the damage done to Rheims Cathedral and other buildings in France. The meeting closed with the passing of the following resolution: "That the Society of Architects desires to express its profound sympathy with the French and the Belgian Governments on the irreparable loss sustained by those countries, and indeed by the whole world, through the wanton destruction by the common enemy of many works of art and of architecture, such as have been the pride of architects for generations."

*Glasgow Architectural Craftsmen's Society.*

At the meeting held on October 23 at the Royal Technical College, Glasgow, Mr.

Thomas Whyte, F.F.S., P.A.S.I., paper on "Modes of Measure." After tracing the growth of the methods employed, he dealt with the rules and regulations for the measurement of mason work, which are expected to come into force at an early date. The present deadlock in the West of Scotland building trade, arising from the agreement of the Building Trades Federation with the Glasgow Institute of Architects and the Faculty of Surveyors of Scotland was dealt with, the Scottish measurement of wright work, 1914, forms the main bone of contention between the parties, being compared with the old mode, and the alterations and conditions discussed in detail.

## SPECIAL LEGAL REPORTS.

*Architects' Claim.**Hadfield v. Marples.*

October 14. King's Bench Division. By Justice Sankey.

This was an action by Messrs. Hadfield and Matthew E. Hadfield, architects, of St. James's Street, St. James's, against Mr. Geo. J. Marples, of Thornbridge Hall, near Bakewell, Derby. The claim was for £338 18s. balance alleged to be due upon a sum of £838 18s. professional charges made by the plaintiffs for alterations carried out at the defendant's mansion. Mr. Scott Fox, K.C., appeared for the plaintiffs, and Mr. Tindalson, K.C., for the defendant.

Mr. Scott Fox stated that in the autumn of 1911 the defendant was anxious to carry out extensive alterations to his mansion, Thornbridge Hall, and engaged the plaintiffs as architects. The work was in progress for a considerable period during which the plaintiffs had incurred expenses, including travelling, other expenses. There was also a number of consultations with the defendant, alterations in the nature of the work were carried out from time to time. A sum of £500 had been paid by the defendant, but counsel said a dispute had arisen chiefly over items in connection with charges for £172 for an assistant and for £350 for various changes not suggested by the defendant. The work was in progress from November, 1911, to March, 1913, and the defence now was that there was a verbal agreement under which plaintiffs were to receive 5 per cent. upon the cost of the work and pocket expenses. Plaintiffs disputed the alleged verbal agreement, and counsel served that much of the work was done by sub-contractors and estate workmen, it was impossible for plaintiffs to know what the proper accounts for these should be, as they were paid by the defendant. The work was of an exceptional character, the hall having cost from £60,000 to £100,000 before alterations began.

The defendant paid £135 into court, contended that this was sufficient.

Mr. C. M. E. Hadfield, in evidence, reported his counsel's statement. His firm had superintended works at the hall in 1903 which cost about £65,000, that occasion there was an agreement for 5 per cent. Since that date he had been several times professionally engaged at the hall, and had always been paid upon the scale of fees now being charged. There was no special agreement in this instance.

Cross-examined: His father did not make an agreement with defendant upon a 5 per cent. basis.



nce was given for defendant to the at the work carried out was similar at executed in 1906 and which was on a 5 per cent. basis.

lordship expressed regret that a ip which had, he understood, or three generations between these should be terminated in the Law.

He hoped, however, that it might ned when this case was decided. parties had told what they believed e truth, but he was not satisfied defendant had discharged the him of proving that the special at set up was made, and on this ary point he found in the s' favour.

nce was given to show that the s' charges were reasonable.

Matthew Garbutt, architect and gineer, said the plaintiffs' charges asonable for the work done owing complexity of the work carried out. er cent. basis was not sufficient rection for such services.

he defence, Mr. Buchanan, clerk works for the alterations, and Mr. e contractor, gave evidence as to racter of the works.

Horace Field and Mr. Bunney, ts, also stated that in contracts of ture, where the cost was over in this case the sum was £11,000 e—the customary architect's fees per cent. and out-of-pocket ex-

lordship, in giving judgment, said ght if he had to construe the rules professional practice, he should have o the conclusion that this was an onal case and not an ordinary one ations and additions. In these cirnces the 5 per cent. basis was not ptly remunerative. Having re-e the evidence his lordship said he e the plaintiffs were entitled to a of £183 3s.

ment for plaintiffs for £183 3s. and

#### Special Point in Compensation Law. *Symmonds v. King.*

5. Clerkenwell County Court. Before His Judge Cluer.

Clerkenwell County Court, on the t., an application for an award e Workmen's Compensation Act ade by Thomas Symmonds, a s' labourer, against Mr. W. A. ilder and contractor, of Mel Square, Brixton.

Wallington was counsel for the ap- and Mr. Lever for the respondent. icant stated that on April 9 last, working for the respondent at some es in Goswell Road, he was ind by respondent's foreman to fetch whitening from a neighbouring shop, crossing the road to the shop he cked down by a London County l tramcar. He sustained two frac- en the left arm and one in the right He was still unable to follow his ment as a result of the injury. The t he claimed as compensation was er week, as half wages, from the the accident and during incapacity. Honour Judge Cluer said that, fol- upon a decision in the House of he must hold that an ordinary acci- such as anyone would be subjected he street was not an accident that out of the applicant's employment.

Wallington: It seems an extra- ry thing that it does not arise out of employment unless the employment ns some special risk. I should say arise out of his employment if he

was brought into a position that led to the injury.

Judge Cluer: It would be so in the case of a road-sweeper who sustained injury whilst working in the street. If your client had been carrying a drum of whitening across the road and had been unable to get out of the way of the tramcar, that would have been within the scope of his employment. It is quite clear that any judgment I gave in favour of the applicant in this case must be overruled. There is a distinct decision in the House of Lords on the very point.

His Honour added that his award must be for the respondent. He hoped, however, that the matter would be taken to appeal.

Respondent was allowed costs on Scale B.

#### Alleged Breach of the London Building Act.

*Brown v. George Trollope and Colls and Sons, Ltd.*

October 23. Chancery Division. Before Mr. Justice Warrington.

This matter again came before the Court on motion (see our issue October 24, p. 254).

Plaintiff sought an injunction against defendants to restrain their excavating for a building in Abchurch Lane, E.C., opposite plaintiffs' building, in contravention of Section 93 of the London Building Act, and also to restrain them from endangering the stability of his building. An interim injunction in the terms of the notice of motion was then granted.

When the motion was called Mr. Mathew, for the defendants, said his clients were building a retaining wall, and he thought it would be better if they finished this wall instead of leaving the excavation open.

His Lordship did not think that would do any harm.

Mr. Terrell, K.C., for the plaintiff, said he should like to consult his experts in the matter.

Mr. Mathew stated that his clients denied that they had infringed the London Building Act as alleged, or that they had endangered the stability of the plaintiff's buildings.

Eventually the motion stood over for another week.

## ENQUIRIES ANSWERED.

#### Thickness of Wall.

R. N. (London) writes: "The accompanying illustration shows the external wall of the warehouse class whose thickness is to be determined. The height is the same throughout, but the length varies at each level. Is the longest length, i.e., 125 ft., taken as general, and ignoring the cross walls at other floor levels?"

—The London Building Act. First Schedule, Part II., under Miscellaneous; sub-section 1, clearly sets forth that "no

wall sub-dividing any building shall be deemed to be a cross wall unless it is carried up to the floor of the topmost storey." None of the walls shown are therefore "cross walls" within the meaning of the Act. In any case, however, the point is unimportant, since sub-section 4 of the same schedule specifies that a wall between 40 ft. and 50 ft. in height and over 45 ft. in length "shall be 26 in. thick at its base"; further increase in length does not affect the thickness, and even the shortest of the alleged "lengths" exceeds 45 ft.

#### Deterioration of Brickwork in Boiler-House.

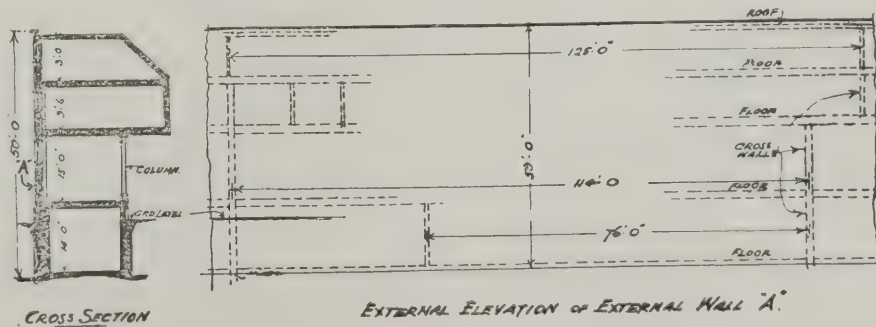
E. S. E. (Oldham) writes: "My attention has been drawn to the condition of a brick pier in a boiler-house. The weight carried by the pier is much less than it is capable of carrying. The brickwork throughout is local, but only the work inside seems to have suffered. The general appearance of the work affected has a frost-like coating, and shows signs of a very badly weathered stone. After the first crust has fallen, the brick then appears hard. The coal used is termed "wash slack." I send a sample of the deteriorated brickwork. What is the cause of the trouble?"

—From examination of the sample forwarded, the scaling appears to be due to the formation of a crust of different density to the body of the bricks during the process of moulding. This is not uncommon with pressed brick, particularly when a semi-dry process of manufacture is adopted, and is probably due to the oiling of the press in order that the raw bricks shall not adhere. The fact that the scaling occurs internally only is probably due to the piers being exposed to varying temperatures, resulting in expansion and contraction which encourages the crust to free itself, and the rough usage which is bound to be experienced in filling and emptying the bins assists the liberated crusts to fall away. The "frost-like coating" which appears is efflorescence, and may arise from a variety of causes, e.g., from salts in the bricks or mortar. The sample forwarded has a saline flavour. It is probable that this is unconnected with the scaling of surfaces save that the crystallisation which takes place helps to force off (though it does not cause) the crust. Had the particles appeared to be of free lime, they would have suggested another cause.

#### Japanese Oak.

S. (Burton-on-Trent) writes: "Can you give me any particulars as to the properties of Japanese oak and its uses? Does it make a satisfactory bearing timber?"

—Reference to this enquiry was made under "Editorial" in last week's issue, where was given the substance of the reply received from the Consulate General of Japan, 1, Broad Street Place, E.C.



CROSS SECTION

EXTERNAL ELEVATION OF EXTERNAL WALL "A."



# CONCRETE AND STEEL SECTION.

(MONTHLY.)

# A STADIUM IN REINFORCED CONCRETE.

In recent years many extensive constructions providing seating accommodation on tiers ranged around athletic grounds have been carried out. One of the very latest is the Palmer Memorial Stadium at Princeton University, U.S.A., shown by the accompanying illustrations. This provides seating accommodation for 41,000 spectators, with standing room on the promenade for several thousand more. It has been built primarily for the annual football games, but a running track has also been incorporated in the lay-out.

In designing the stadium the governing idea was to so place the seats that the spectators should be as near as possible to the "gridiron," and have unobstructed lines of sight. These requirements led to the adoption of a U type of plan. Both legs were made straight and were to be connected by a semicircular section, as in the Harvard stadium. It was found, however, that the seats near the centre of this section would be too far away from the "gridiron," and the semi-circular shape was, therefore, abandoned, and an elliptical curve substituted.

The stadium is a reinforced-concrete structure consisting mainly of a series of buttressed piers carrying an outer wall with large arched openings, transverse beams spaced 16 ft. 10 in. apart supporting the seat tiers, and a field wall separating the seats from the field. At the top of the structure is a 12-ft. promenade, and inside the exterior line of piers is a 20-ft. concourse, from which ramps lead to the seats. There are twenty-six ramps in all, of which nine are placed in either wing at 50½ ft. centres, and eight evenly spaced in the elliptical portion. Reinforced-concrete

beams between the columns serve to support the ramps, the railings of which serve as girders to support the floor. The opening to the seats is enclosed on three sides by a concrete wall 3 ft. 2 in. high and 4 in. thick, to prevent accidents and to divert rainwater.

Reinforced-concrete steps spanning the distance between the supporting beams constitute the seat tiers, of which there are forty-eight. To give the spectators as unobstructed a view as possible the tiers are "bowled." As it would have involved complications in construction had all the treads and risers been different, this curve was approximated by its three tangents, so that, from the field, the first twenty treads are 2 ft. 7 in. wide and the first twenty-one risers 15 in. high. On the



Concourse beneath Stadium.

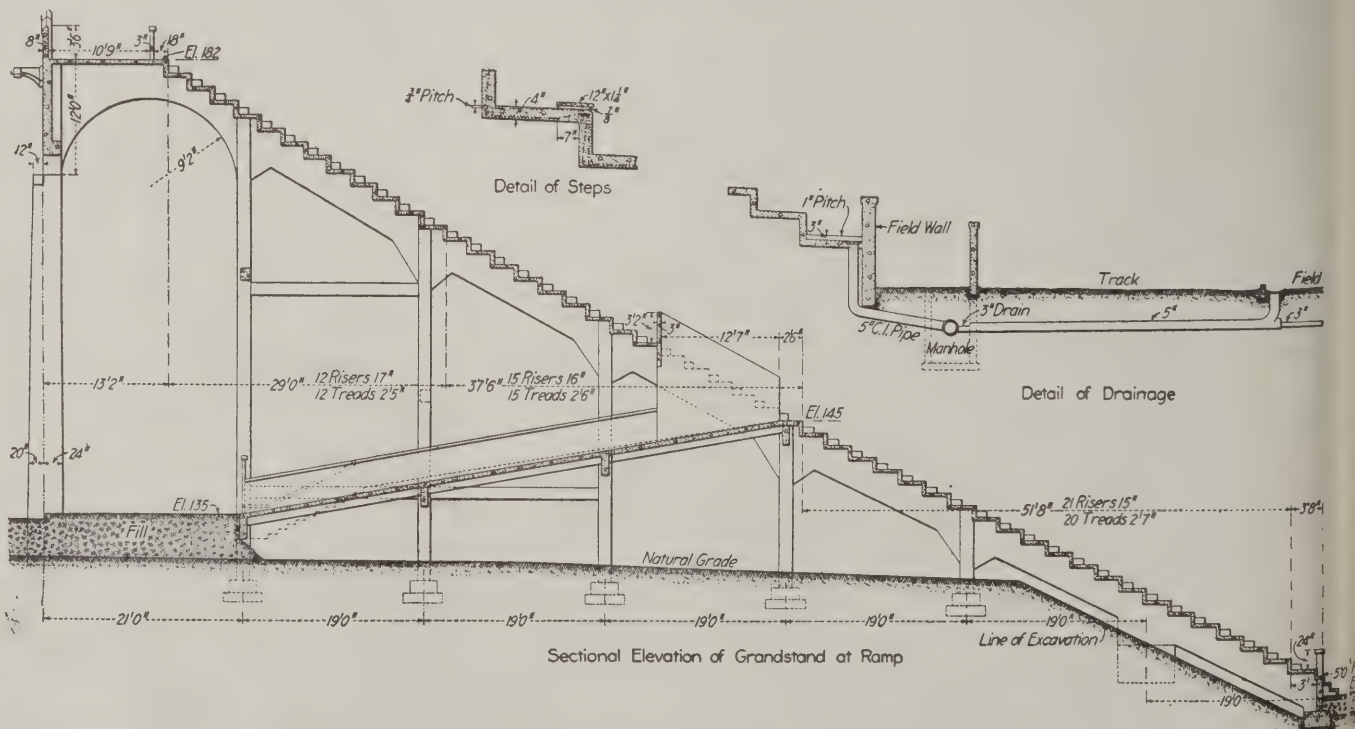
next tangent the treads, fifteen in. are 2 ft. 6 in., while the risers are in to 16 in. The last tangent has treads of 2 ft. 5 in. wide, with risers further increased to 17 in. The menade at the top is separated by seats by a low concrete wall, for wind shield. Inside the field walk has been provided. Four steps from the front of each ramp lead from this to the field. The seat tiers are connected by steps 3 ft. wide having a 1-ft. tread and a riser equal to half the rise of the field. There are, therefore, 100 steps from the field to the top of the structure.

To make the seats comfortable, concrete treads are fitted with cypress slightly overhanging the edge, and fastened to the concrete with expansion bolts.

Two towers flanking the great arch of the entrance give architectural cohesion to the structure, which has been designed to conform to the "cathedral Gothic" style of the Princeton building. The players' entrance follows the grade until the slope of the seats requires excavation necessary.

Wooden forms were used throughout the construction of the foundations and square twisted bars of various diameters constitute the reinforcement, of which there is about 450 tons. The concrete for the construction above ground was placed very wet in the proportion of 1-2-4½ and for the foundations the proportion was 1-3-5.

The stadium has cost about \$1,000,000. It is the gift of Mr. Edgar P. Pauley, a former graduate of Princeton University. The structure was designed by Mr. Hardenbergh, architect, of New York City, the reinforced concrete details having been supplied by Messrs. Purdy and Anderson, consulting engineers. The work was carried out by the George A. Fuller Company.



REINFORCED CONCRETE STADIUM, PRINCETON UNIVERSITY, U.S.A. H. J. HARDENBERGH, ARCHITECT.



ALL REINFORCED CON-  
CRETE BRIDGE.

Accompanying illustrations show a reinforced concrete bridge which has been erected over the river at Guildford in place of a stone bridge which had become unsafe for the greatly increased volume of traffic passing over it. The bridge was erected by the Surrey County Council, under the direction of the engineer, Mr. A. Dryland, F.R.S.E. The construction is on the system of the Trussed Concrete

bridge. The clear span between the abutments is 70 ft. 6 in. and the width between parapets is 20 ft. 6 in. The roadway is 17 ft. 6 in. wide. Arch ribs spaced at 10 ft. centres support the decking slab, being under each parapet and two ribs placed close together at the crown. This arrangement of the bridge is without having to divert the

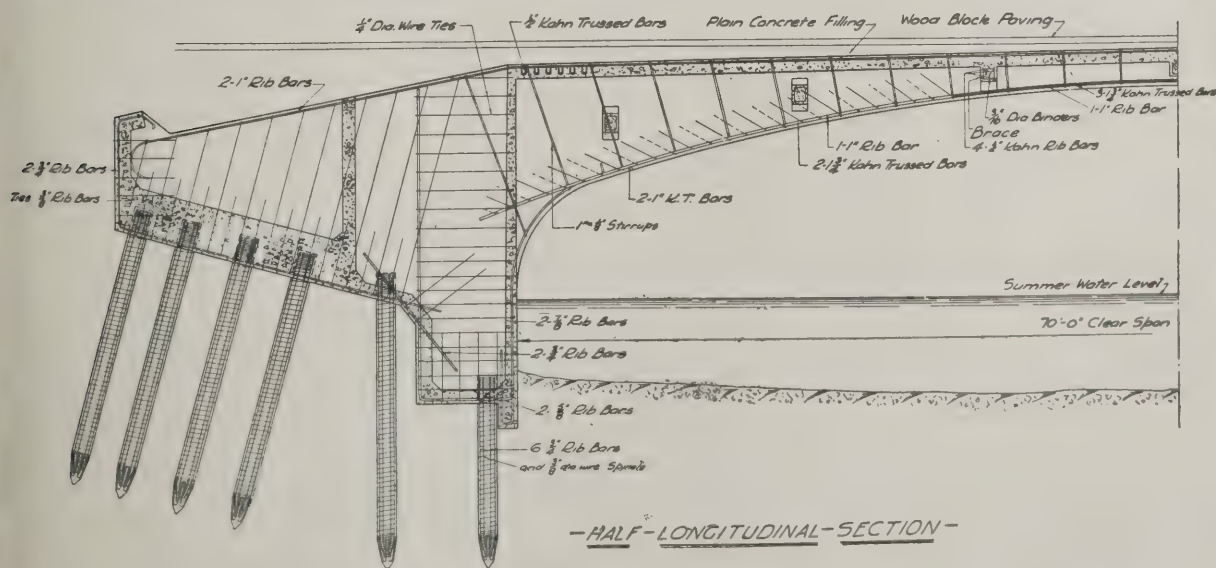
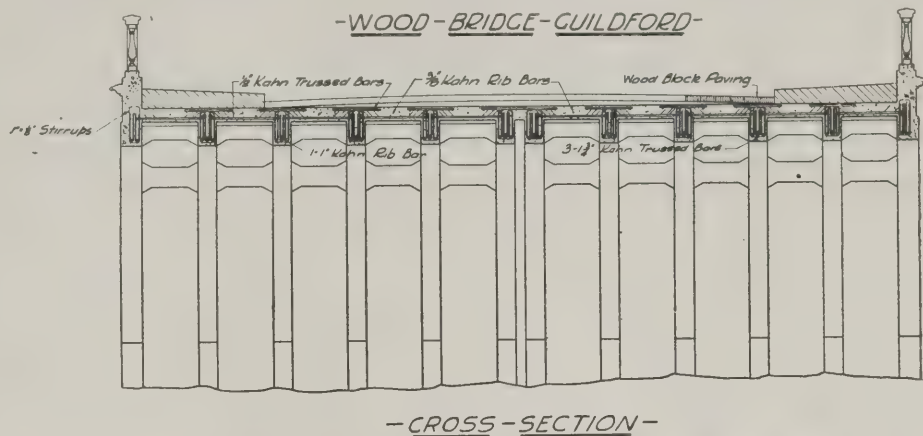
traffic. The bridge was required to carry a test load consisting of three 20-ton traction engines travelling in train. The train was in a position which caused a maximum bending moment on the span, and the uniformly distributed load was calculated which would produce an equal bend-

ing moment. This uniform load worked out at 200 lb. per sq. ft.

In the preliminary stages the arched ribs were treated as being of the three-hinged type assuming a hinge at each abutment and another hinge at the crown. The span was divided into equal panels, and the load on each panel point was calculated on the assumption that the live load extended over one-half the span, this being the loading which would produce the maximum bending moments in the rib. The design was checked on the assumption that the ribs were fixed at the ends to the abutment buttresses, that is, on the

elastic theory, without employing hinges. The arched ribs, which are 20 in. by 12 in. at the crown and 60 in. by 12 in. at the abutments, are reinforced with Kahn trussed bars and Kahn rib bars of sufficient sectional area to resist the maximum bending moments. The general arrangement and details are shown by the section on this page.

Considerable difficulty was experienced in securing satisfactory foundations for the abutments. The ground under the abutments was of poor pressure-bearing quality, and 12 in. by 12 in. Kahn piles 22 ft. long, six to each rib buttress,



REINFORCED CONCRETE BRIDGE, GUILDFORD.





REINFORCED CONCRETE BRIDGE, GUILDFORD.

were driven to assist in taking the pressures. Several of the piles could not be driven in their true positions owing to the presence of the foundations of the old bridge. Finally a very thick, heavily reinforced slab was put in between the rib buttresses over the existing foundations. This treatment has proved to be entirely satisfactory. The fronts of the buttresses are connected by a reinforced concrete wall varying in thickness from 5 in. at the top to 7 in. at the bottom, reinforced with  $\frac{1}{2}$ -in. Kahn rib bars.

The centering of the ribs was of special design, as a clearway 16 ft. wide and 7 ft. 6 in. high above summer water-level had to be provided in order that the river traffic should not be stopped during any period of the work.

The arch ribs are stiffened laterally by seven 12 in. by 10 in. braces reinforced with four  $\frac{3}{8}$  in. Kahn rib bars bound together with 3-16 in. ties at 9 in. centres. The decking slab is designed to carry the  $7\frac{1}{4}$  ton back wheel load of a 20-ton road engine. It was cast at the same time as the arch rib and was stopped at the end of each day's work against a straight vertical screed board, which was placed at the centre of the span between the ribs, this being the most satisfactory position for the joint from the point of view of shear resistance and bending moment.

The whole of the concrete for the reinforced work was composed of 9 cub. ft. of clean gravel (to pass a  $\frac{3}{4}$  in. screen but to be retained on  $\frac{1}{8}$  in. screen),  $4\frac{1}{2}$  cub. ft. of clean sharp sand, and 1 bag (224 lb.) of English Portland cement to comply with the British standard specification for medium setting cement. The road foundation was of mass concrete laid with a finishing coat to take the 4 in. wood block paving. The footpaths are paved with 2 in. thick artificial stone paving, with a granite kerb adjoining the roadway. The outside ribs of the bridge are carried to a level of about 12 in. above the footpath, and have a moulded string-course on the outside to give relief to the elevation. The parapet is formed of cast concrete balusters, in each of which was cast a Kahn rib bar projecting at each end to form a secure connection with the weathered moulded coping, which was cast in position, having expansion joints about 30 ft. apart.

When tested with the train of road engines the deflection at any position of the loading was practically unmeasurable,

amounting to one-twelfth of an inch, which is  $\frac{1}{10080}$  part of the span. The specification stipulated that the deflection under the test load was not to exceed  $\frac{1}{800}$  part of the span with a permanent set not exceeding  $\frac{1}{2}$  in. at the centre. The allowable deflection was therefore 1.4 in.

### STRENGTH OF RIVETED CONNECTIONS TO COLUMNS.

BY W. CYRIL COCKING, M.C.I.

An enquiry from a correspondent, dealt with in the issue of this JOURNAL for October 14, raises an interesting and important point in connection with the calculation of the stresses in a riveted connection of a beam to a column as indicated in Fig. 1.

Mr. E. S. Andrews, in his reply, pointed out that in addition to the stresses induced by direct shear and local bending moment in the connection itself, other stresses will be introduced consequent

upon the relative deflections of beam and pillar at the point of connection. (The possibility of these latter is willingly admitted. That the deflection is relatively great or small is a matter of conjecture; in all probability it is possible to calculate accurately the actual value, because certain conditions of the pillar end fixture would need to be assumed.) But when we come to the end, as in this case, we dare not assume that engineers ignore the question of maximum stresses in the rivets, calculated within the limits of our knowledge of the subject—ignorance may be called the "deflection" stress. Calculated upon this basis, the figures will show that whereas the maximum shear stresses should not exceed 5.5 tons per square inch, by calculation they are shown to be 10.8 tons per square inch. Assuming that there are additional "deflection" stresses, these clearly indicate that the design is faulty, and the connection deficient and unsafe.

Considering Fig. 2, showing the assumed positions of all the rivets, notice that there are two points of rotation—x and y. The beam can be seen to revolve about the point x, and the column and connection plate together about point y. Assuming that there will be no appreciable deformation in the connecting plate strained as a beam, it is fairly obvious that the Bending Moment upon the connection as a whole is shared by the two groups of rivets proportionately, and the stress on any individual rivet due to such Bending Moment is proportional to its distance from its centre."

Therefore, if

$F_s$  = unit shear stress on rivets

$A_r$  = area of one rivet  $\frac{3}{4}$  in. diam.

= 6013 in.<sup>2</sup>

B = Bending Moment on rivets

=  $22T \times 10.93$  in. = 240,660 in.-lb.

tons.

M = section modulus of rivets

Then, stress on rivets  $r_s$  and  $r_7$

to bending moment  $B = F_s = F_7$

$M = \frac{I}{n}$  and  $n = 7.3$  in.

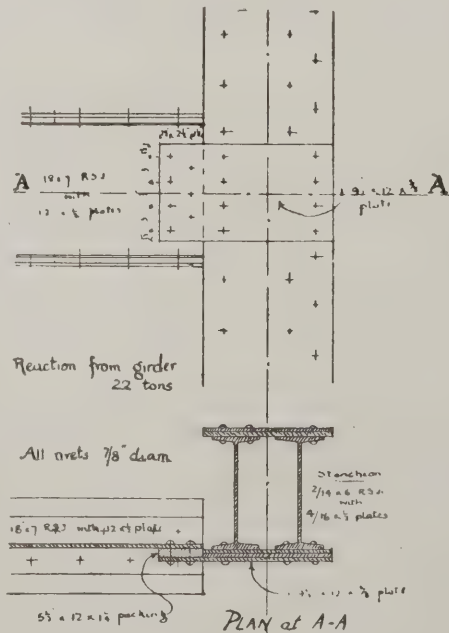


Fig. 1.



"Aquarep" (formerly known as "Ceresit") is now entirely British-made and British-owned. It is a light-coloured paste of about the consistency of butter, and, when dissolved in water and thoroughly mixed with cement and sand, renders the resultant material impervious to water even under the highest pressure. Under its old name, "Aquarep" has been successfully employed, externally or internally, in very many important buildings, at home and abroad. In a pamphlet issued by the vendors, Messrs. Damp-Proofing, Ltd., 22, Bank Buildings, Kingsway, London, W.C., photographic views are given of the new Liver Building, Liverpool; the Royal Society of Medicine, Henrietta Street, Cavendish Square, W.; the



Tate Gallery, Millbank; a reinforced concrete reservoir at Conisbro'; Kirton Lindsey railway trench; the swimming bath at Cheadle Hulme, Manchester, etc.; in all of which, as well as in hundreds of other notable instances, this material has been used with success. The pamphlet contains instructions, illustrated with diagrams, for the waterproofing of basements, cellars, heating chambers, tanks, water towers, swimming baths, etc., as well as for walls, flat roofs, and terraces, and for the formation of inexpensive but efficient damp-courses.

### R.I.B.A. NEW SCHEME OF EXAMINATIONS.

It has just been decided that a number of important alterations are to be made in the qualifying examinations of the Royal Institute. The alterations will take effect after July, 1915. Particulars of the new scheme (which has been prepared by the Board of Architectural Education and sanctioned by the Council) are given below, and they are followed by a note on the position of candidates who have joined the Colours, and by a further note which deals with the decision of the Council with regard to foreign candidates who desire to sit for the Final Examination of the R.I.B.A.

The following modifications in the scheme of examinations will come into effect after July, 1915:

#### *Preliminary Examination.*

The examination in the following subjects will be discontinued:

- (1) Short English composition.
- (2) Writing from dictation.
- (3) Arithmetic, algebra, and elements of plain geometry.
- (4) Geography and history.
- (5) Latin, Italian, French, or German (one language only).
- (8) Elementary mechanics and physics, but every candidate for registration as probationer must satisfy the board that he has attained a sufficient standard of general education.

The examinations set out in the Kalendar will be regarded as indicating the required standard.

Examination in Subject No. 6 (geometrical or perspective drawing) and Subject No. 7 (freehand drawing) will be retained as at present.

The admission fee will be £2 2s., as at present, but relegated candidates will be required to pay a fee of £1 1s. for each subsequent attempt for all examinations after that of June, 1915.

#### *Intermediate Examination.*

The admission fee for examinations subsequent to that of June, 1915, will be £6 6s., and relegated candidates will be required to pay a fee of £3 3s. for each subsequent attempt.

#### *Final Examination.*

The admission fee for examinations subsequent to that of July, 1915, will be £6 6s., and relegated candidates will be required to pay a fee of £3 3s. for each subsequent attempt.

#### *Special and Colonial Examinations.*

The admission fee for examinations subsequent to that of July, 1915, will be £10 10s., and relegated candidates will be required to pay a fee of £5 5s. for each subsequent attempt.

#### *The Examinations and the War.*

The Council of the R.I.B.A. wish it to be known that generally every consideration

possible will be shown to candidates who have joined the Colours, and they will be conceded the following specific privileges:

Candidates for the Intermediate Examination whose testimonies of study are approved to be registered as students.

Candidates for the Final Examination who have had one or more problems in design approved may be exempted from submitting others.

#### *The Examinations and Foreign Students in English Architectural Schools.*

The Council have decided to allow candidates other than British subjects who are desirous of possessing evidence that they have obtained the status, though not the rank, of an Associate of the Royal Institute, to sit for the Final Examination, and in the event of their passing to furnish them with a certificate to that effect.

### COMPETITIONS.

#### *Artisans' Dwellings at Southend-on-Sea.*

A competition is being promoted by the Corporation at Southend-on-Sea, limited to architects resident in the borough, for the design of artisans' dwellings to be erected in Ruskin Avenue. Premiums of £20 and £5 are offered. Drawings have to be sent in by November 14. Particulars are obtainable from the Borough Engineer, Mr. Ernest J. Elford, M.I.C.E. (deposit £1 1s.).

#### *School, Gateshead.*

In this competition nineteen designs were submitted, the selected design being that by Mr. F. W. Purser, of Gateshead.

#### LIST OF COMPETITIONS OPEN.

NOVEMBER 14.—ARTISANS' DWELLINGS, SOUTHEM.—(See note above.)

NOVEMBER 18.—LAUNDRY AND COTTAGE HOME, HOWDEN.—Plans and estimates are invited by the Howden Board of Guardians for the extension of their laundry at the workhouse and for the conversion of a

dwelling-house and premises in S. Street, Howden, into a cottage. Premium of £5 to successful competitor. Particulars, Mr. Henry Green, Howden.

DECEMBER 4.—TUBERCULOSIS HOSPITAL, SOUTHEM.—The Corporation invite designs for a tuberculosis hospital. Premiums, £100, £50, and £25. Particulars, Mr. Ernest J. Elford, Borough Engineer, Southend-on-Sea.

FEBRUARY 8, 1915.—WORKMEN'S DWELLINGS, CITY OF LIVERPOOL.—The Corporation of Liverpool invite designs for men's dwellings, to accommodate 500 persons, and to be erected in Rathbone Street area. Premiums of £50, and £25 are offered, and the successful candidate will be appointed Mr. Henry J. F.R.I.B.A., as assessor. Particulars (£1 1s., returnable) from Mr. Edw. Pickmere, Town Clerk, Municipal Office, Liverpool. Designs and particulars delivered at the office of the Town Clerk not later than 5 p.m. on Monday, January 8, 1915.

#### NEW LONDON SHOP-FRONT

We illustrate on this page the entrance doorway in the new shop-fronts which have been carried out for Harvey, Nichols, and Co., at Knightsbridge—in a large building opposite the Hyde Park. The shop-fronts, which, in all, project less than 350 ft. run of window space, are decorated with bronze metal mouldings with green marble ornaments, and bases of green marble fascia is also of green marble, with letters attached. Within the entrance has been carefully planned to suit the requirements of a large drapery establishment, there being mahogany fittings and mahogany enclosures, with plate-glass counters. The whole of the work has been executed by Messrs. Harris and Sheldon, Ltd., of Birmingham, under the supervision of F. E. Williams, F.R.I.B.A.



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## PROJECTED NEW WORKS.

*New School, Wapping.*

A new school, to accommodate about 500 children, is to be erected in Wapping, in place of the Brewhouse-lane Council school.

*Artisans' Dwellings, Southend-on-Sea.*

The Southend-on-Sea Corporation are inviting local architects to submit a scheme for the erection of artisans' dwellings in Ruskin Avenue.

*Bridge, Newport, South Wales.*

Plans and estimates for a temporary bridge are to be laid before the Newport Corporation Parliamentary and Improvement Committee.

*Parade Scheme, Pwllheli.*

The Pwllheli Town Council have adopted a scheme for erecting a sea wall parade and road between the South Beach and West End Parade at a cost not exceeding £4,000.

*Improvement, Bermondsey.*

The Bermondsey Guardians have sanctioned an expenditure of £2,500 on the extension of the accommodation for married couples at their Ladywell Institution.

*Housing Scheme, Clydebank.*

At a meeting of the Second Ward rate-payers of Clydebank, Glasgow, it was stated that the proposed municipal housing scheme in the burgh was completed. Certain proprietors of ground in suitable districts had given their lowest prices for available sites. Plans had been prepared and approved by the architect of the Local Government Board, who also approved

generally of the scheme. The Council intended to go on with the scheme directly they were authorised by the Local Government Board.

*Various Works, Glasgow.*

The Glasgow Dean of Guild Court have passed the following linings:—The Alexandra Park Property Company, to erect ten tenements in Aberfoyle Street; St. George's Co-operative Society, to erect stables in a lane between Jordan Street and Hill Street, Whiteinch; Sir John Stirling-Maxwell, Bart., to form certain streets in Newlands district; Glasgow Lock Hospital, to make additions on property in Rottenrow; Samuel Stevenson and Co., to erect one-storey building for timber yard in Elmfoot Street; the School Board of Glasgow, to make additions to buildings in Oxford Drive; the Corporation of Glasgow, to erect a fire station in Wallace Street and Centre Street; Glasgow Provincial Committee, to erect a demonstration school, students' hostel, and offices at Jordanhill.

*Various Works, Wandsworth District.*

Erection of bay windows, porches, etc., to twelve houses on north-eastern side of Salterford Road, Streatham, on application of Cornick and Bannister. Erection of an extension to Tooting Wesleyan Mission, Mitcham Road, Tooting, on application of Gelder and Kitchen for the Trustees. Additions to and alterations at 60, Balham High Road, Wandsworth, on application of Davis and Boddy for R. Lawson and Co. Erections of buildings at the rear of Nos. 200, 202, 204, Streatham High Road, on application of E. Bates for Welford's Surrey Dairies, Ltd. Erection of a building at 42, Streatham High Road for Temperance Billiard Halls, Ltd. Erection of two-storey bay windows and pro-

jecting porches to houses at 37, 39, 41, 43, 45, and 47, Topsham Road, Upper Tooting, on application of Swain and Sons. Erection of nine houses on south side of Penistone Road, Streatham Common, on application of W. S. Jones. Erection of two dwelling-houses and a motor-house on south side of Woodbourne Road, Streatham, on application of Holliday and Stanger. Erection of building in Upper Richmond Road, Putney, on application of G. W. Beattie.

*Reinforced Concrete Caisson*

There are to be launched at the inland docks shortly some novel structures in the shape of reinforced concrete caissons, which are intended to be sunk in the docks to provide foundations for new coaling facilities which the Wear Commissioners have in hand. The caissons are of box form, about 30 ft. square and 26 ft. high. They will be strong enough to float, with a draft of about 10 ft. Upon being taken to their sites, the structure of masonry will be built on the caissons while afloat. As the masonry is erected the weight will cause the caissons gradually to sink until they rest on the bottom of the dock. This work will be carried on above instead of under water. The caissons have been built from designs by, and under the supervision of, Mr. Wm. Simpson, M.I.C.E., the Commissioners' Chief Engineer.

*The English Parish Church*

Messrs. Batsford will publish shortly a book on "The English Parish Church" by the Rev. J. Charles Cox, LL.D., F.R.S. The work will be fully illustrated with photographs and drawings, including a special series of plans.

## A Short Chronological History of British Architecture.

THE greatest achievements of British Architecture are presented as a *coup d'œil* in this attractive volume. Thus, in Section I we survey the work of the cathedral builders; in Section II. notable examples of the Early Renaissance, such as Hatfield and Montacute; in Section III. the great buildings of the Later Renaissance, such as Blenheim Palace, Greenwich Hospital, and the Dublin Customs House, with the addition of Newgate Prison, St. George's Hall, Liverpool, and a few similar examples that carry us into the nineteenth century; the survey concluding with a fine series of illustrations of work by Sir Aston Webb, Mr. Ernest Newton, Mr. Mervyn Macartney, and other eminent architects of the present day.

The letterpress accompanying the illustrations is written by acknowledged authorities, and sets forth in brief order the entire chronological development, following the succeeding phases of architectural art, and supplying those essential facts which are necessary to a proper estimate of the whole.

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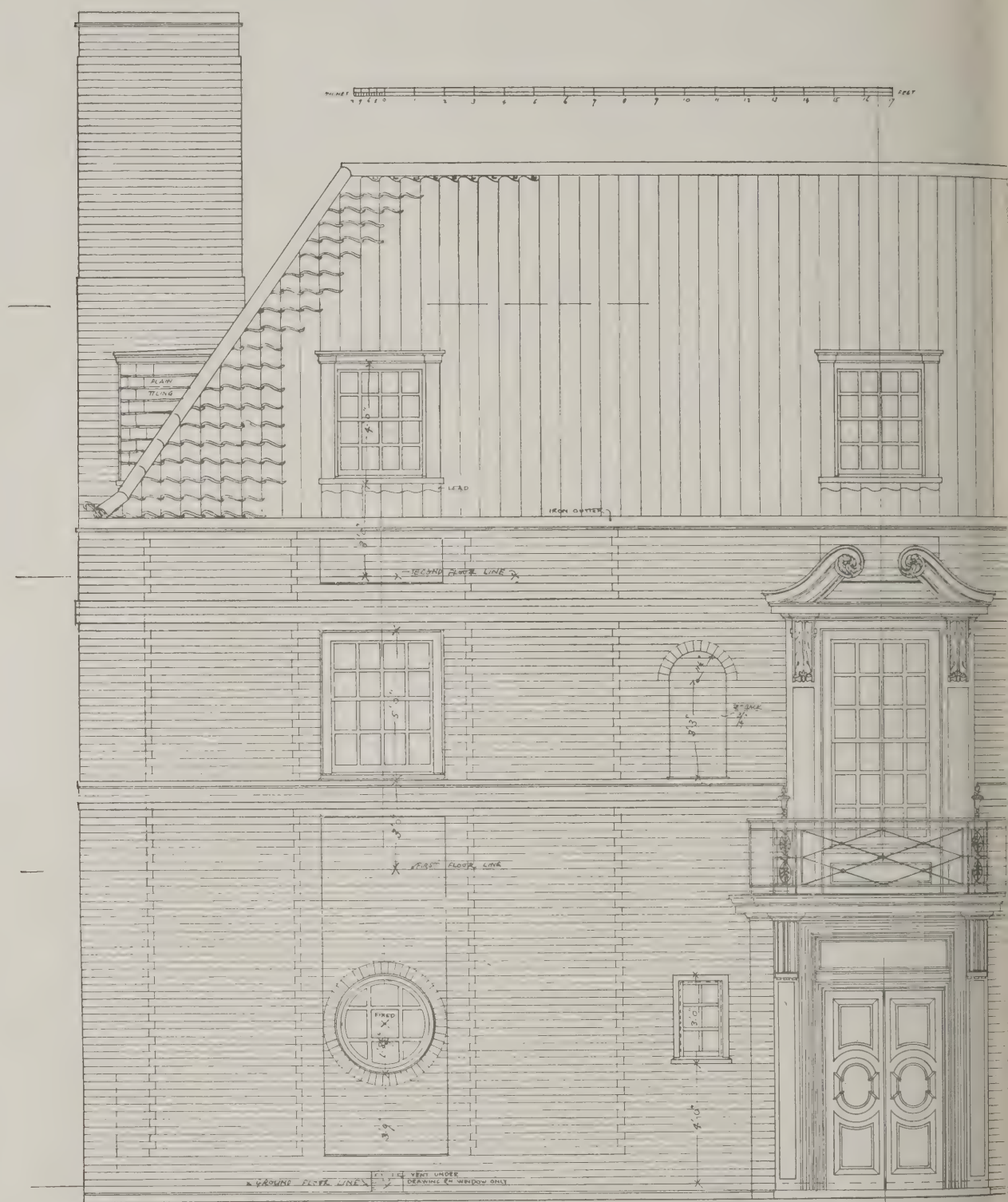
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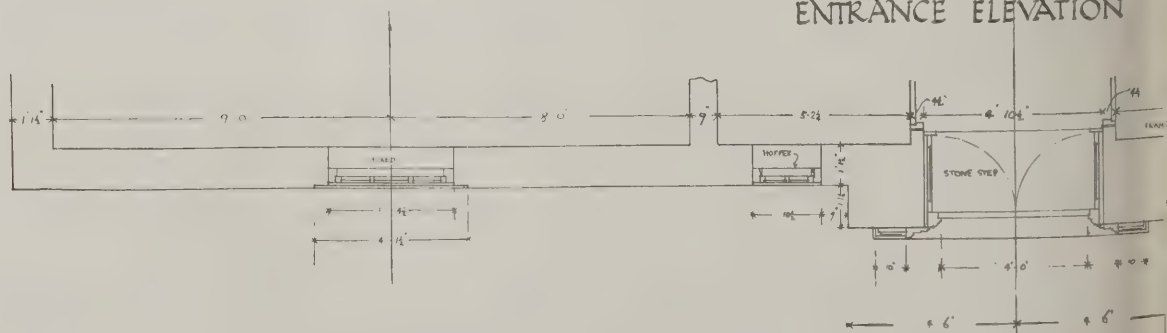


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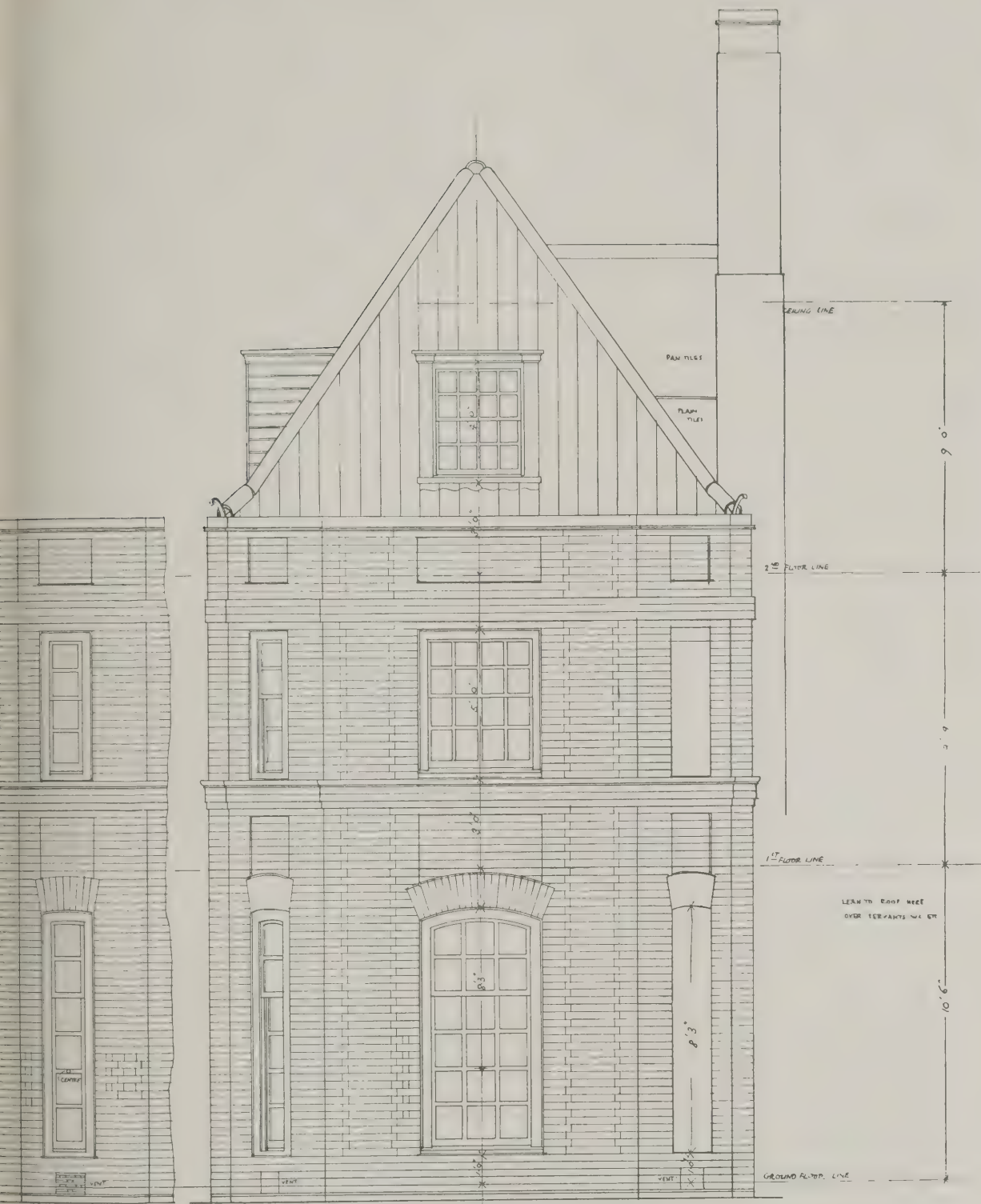


ENTRANCE ELEVATION



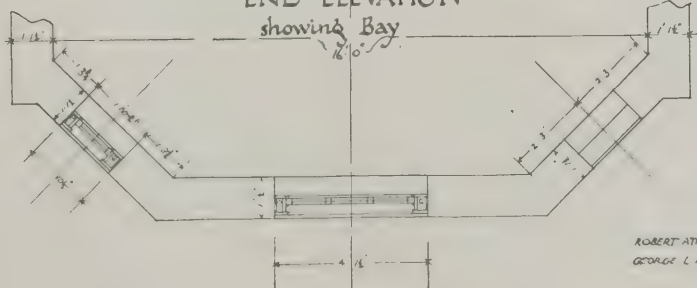
WORKING DRAWINGS BY WELL-KNOWN ARCHITECTS  
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TRUE ELEVATION  
of Side Windows of Bay

END ELEVATION  
showing Bay



ROBERT ATKINSON A.R.B.A. 1  
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FRENCH EMPIRE FURNITURE. IV.—FOOTSTOOL IN GRAND TRIANON, VERSAILLES.



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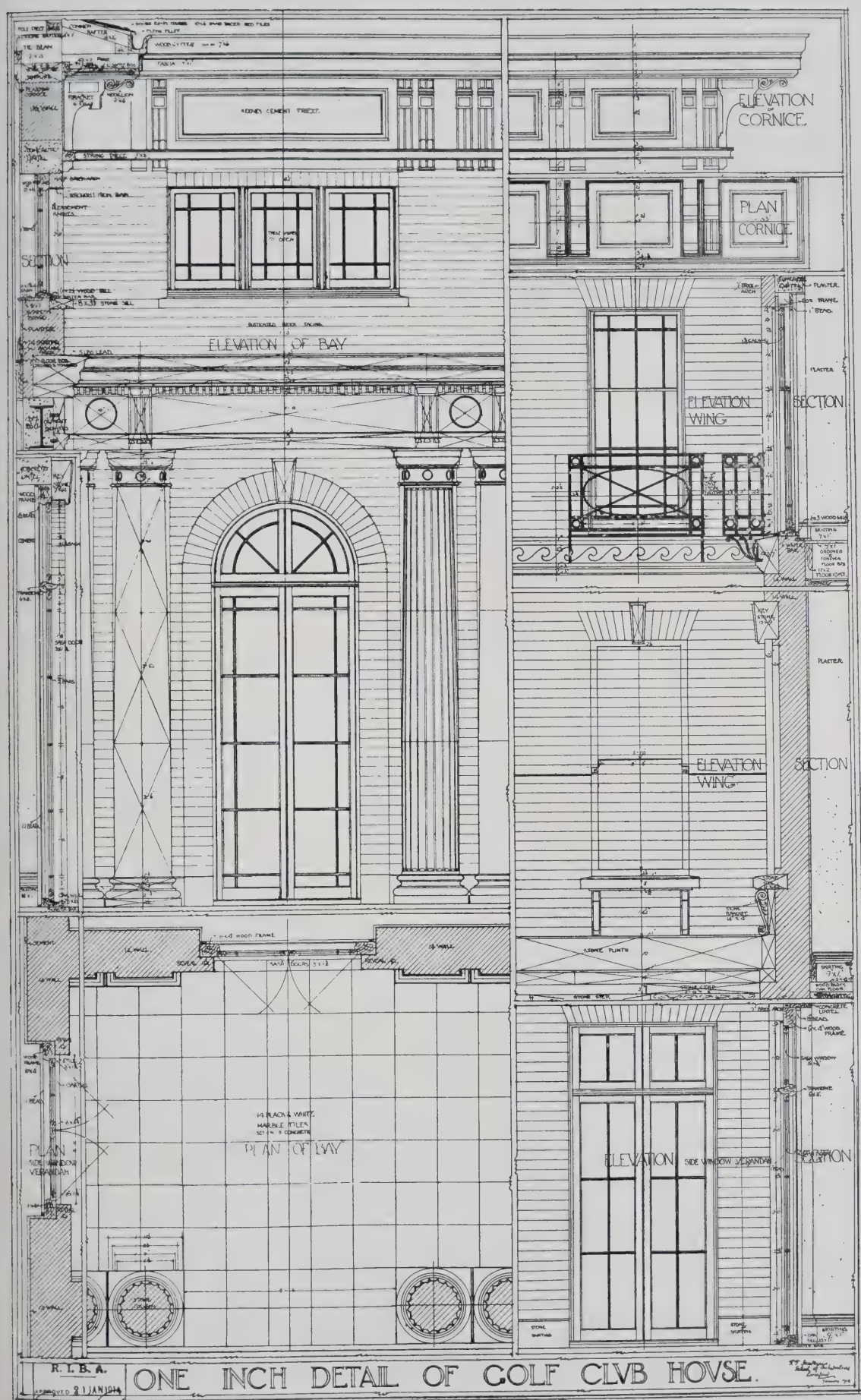
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STUDENTS' DRAWINGS. XXXIV.—DESIGN FOR A GOLF CLUB HOUSE (R.I.B.A. FINAL TESTIMONY DESIGN).

BY T. T. JENKINS.



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Billiard Room.



Hall.

MODERN DOMESTIC ARCHITECTURE. XLIII.—HUNTERCOMBE PLACE, HENLEY-ON-THAMES.  
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CURRENT ARCHITECTURE. LXXXVIII.—NEW PREMISES, COCKSPUR STREET, LONDON, S.W.  
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THE  
ARCHITECTS' & BUILDERS'  
JOURNAL.

Wednesday, November 11, 1914.

Volume XL. No. 1036.

No. 110.



(From Piranesi.)



# THE ARCHITECTS' & BUILDERS' JOURNAL.

NOVEMBER 11, 1914.

TOTHILL STREET, WESTMINSTER.

VOLUME 40. No. 10.

## EDITORIAL.

AMONG the committees of the American Institute of Architects is one which is specially charged with the Conservation of National Resources and Historic Monuments. That it is a "live" committee, with a broad outlook, is evident from its vigorous protest against the wanton destruction of cities, cathedrals, and historic monuments in Belgium and France. Coming from a neutral country whom Germany has taken the most elaborate but characteristically clumsy and futile pains to conciliate, the protest cannot fail of considerable moral effect upon the world at large, even though the super-obtuseness of the Germans remains impenetrable to it. Count von Bernstorff, of course, made the reply that was to be expected from him. "So far as the German army is concerned, no 'perfectly inexcusable and unnecessary destruction of priceless works of art' has taken place in this war." Seeing that the Germans have the cool effrontery to attempt to saddle Great Britain with the onus of causing this war, it follows logically that it is we who are really responsible for the German misconduct of it! It is surprising that the Count has not charged us point-blank with the crimes of Liège, Louvain, Reims, and the rest. That he has merely insinuated this monstrous falsehood suggests that he is in a chastened mood. It has been brought home to him that he has made the mistake of his life in imagining that it was in his power to hoodwink so astute a people as the Americans, whose disgust will be still further deepened by this latest essay in Teutonic equivocation.

It is perhaps rather early to talk of the reconstruction of Belgium; but already the subject is under discussion, and the garden suburb enthusiasts are on a keen scent for resuscitation in accordance with their own particular ideas. Belgian refugees, we are told, "are being introduced to new ideas on the Co-partnership Garden Suburbs, where they are enjoying a fresh view of social life." Belgium, with some 590 persons to the square mile, and the not very enviable reputation of being the most densely populated country in the world, will no doubt make the most of its melancholy opportunities for a redistribution that will relieve the congestion of town areas and give the teeming industrial populations a better chance of health than they had under the old conditions. In taking back with them the garden-suburb idea, a practical-minded people like the Belgians may be trusted to divest it of the fads and eccentricities that are hampering the movement here. From us they will take only the root-principle, from which the fads may be left to spring up indigenously.

Presidential addresses to the R.I.B.A. have embodied many notable utterances (why does not the Institute collect them into a volume?—they would

form a valuable reflex of progressive architectural opinion), and there have been few that have more felicitously expressed, or more sensitively responded to the mood of the moment, and none that have been uttered in circumstances of greater gravity and importance, than that which was delivered at the opening meeting of the session on November 2nd by Ernest Newton. Its substance being repeated elsewhere in the present issue, there is no need to summarise it here; but we cannot refrain from commending the author on the delicacy and restraint which he has dealt with an occasion that was fraught with many and strong temptations to eloquence.

One or two homely but happy phrases show that the author has not lost his enviable power of condensing much matter into few words; as when, for example, speaking of the War Committee, he says: "its 'machinery, being new, has creaked a little." The sentence that, in its quiet effectiveness, is more forceful than whole pages of laboured argument and excuse. Again, it would be impossible to state more pithily than this the policy of the Professions' Employment Committee: "The Committee, thinking that it is better, if possible, to provide employment than to relieve by means of doles, is arranging a programme of work which might usefully employ those whose ordinary practice has come to a standstill."

Even when referring to "the high example of sacrifice and devotion to his country of Mr. L. Webb," the president of the A.A., in enlisting a new army, and while paying a passing tribute to young brethren who have been ready with their moment's hesitation to give up comfortable homes for good prospects to serve their country in a time of need," Mr. Newton still remembered the value of artistic restraint as well as the need of valour and made a rather neat point in claiming that the architects who are now serving their country have, by their subscription to a form of registration! For Mr. Newton feels, as indeed we all feel, that, in a war cannot leave us exactly as it found us, the result of it must be a more complete unity and solidarity of the forces, interests, and feelings which ought to be combined, but which hitherto have seemed antagonistic. Having now closed up this shoulder, it is unlikely that we shall ever again squander so much of our energy on domestic bickering.

*Sic itur ad astra.* The Cincinnati Astronomical Society has had the happy thought of incorporating the front of its new building certain exterior features of the Cincinnati Chamber of Commerce building which was in great part destroyed by fire



of architecture, and in particular readers of the Journal, hardly need to be told that the Chamber of Commerce building was one of the finest works of the best, as well as one of the most prolific, of American architects of his day, H. H. Richardson. Born in 1838, Richardson was eight-and-thirty in 1870, he returned to the United States brimming with the artistic spirit imbibed during several years' study in Paris, and was among the first of his countrymen to demonstrate the vital difference between structural and merely engineering work.

Richardson and White worked as a draughtsman before he went to Paris, found enough work to do, their "Norman rock-faced style" being in demand all over the country for all kinds of buildings—court-houses, churches, railway stations or gate-lodges. Richardson's fine design for a cathedral at Albany was never executed; but his Trinity Church at Boston, his house and jail at Pittsburgh, and Chamber of Commerce at Cincinnati, have been much admired. It is thought that at the time of his death, in 1886, the life of his work had almost come to an end; for years later many designs in his mode for the Cathedral of St. John the Divine were rejected in favour of a Renaissance design by Messrs. Carrère and Hastings. As to the memorial that is being raised to Richardson by the Astronomical Society, one may well question a philosophic doubt or so as to whether the familiar form is well advised; but any misgiving in his head is entirely without prejudice to the fine work of the project. In life and afterwards, architecture receives too little consideration; and therefore we have no means in the mood to pretend that this well-deserved tardy recognition leaves us cold.

At least one instance, it has been shown that what we ventured to call the "gun-emplacement" is without warrant: but for the obvious reason, we should have said "without foundation." It appears, on the unimpeachable evidence of the drawings for the building at Willesden, that the design is quite normal, and that the thickness of its walls has no necessary relation to German "slimness." Both the thickness and the "slimness" have in fact, grossly exaggerated, even when the walls are 4 ft. thick" reported in the London papers, showing inversely to the distance, were reduced in proportion to 2 ft. thick. For the walls, conforming to the London Building Act, are but 14 in. thick; and though it is true that the roof is supported by reinforced-concrete beams that are 2 ft. deep, it is not that this depth was necessitated by the length, but the members are of 56 ft. clear span. The floors throughout are only 5 in. thick, except where beds had to be made for boilers, engines, and machinery. More than half the entire area of the building is covered with saw-tooth roof-lights! So far, so good; and if, on investigation, it appears that the other cases are equally innocent, the scare will still have served the excellent purpose of making the virtues of reinforced concrete much less "caviare to the general"—military or civilian.

It cannot be too strongly nor too often reiterated that the matter of building the soundest economy is the only one. Any public authority that is deliberately piling up its projects with the object either of saving its resources in reserve for a period of distress or of this very action—or, rather, inaction—must inevitably conduce, or of waiting for a fall in prices, is committing a grave error. We fully believe that Mr. L. Chappell, of the South Wales Garden Cities Town-planning Association, was justified in his appeal to the Trades and Labour Council at Tre-

herbert, the other day, that unless local authorities undertake forthwith housing and other building projects, the money withheld from remunerative undertakings must ultimately be dissipated in demoralising doles for the relief of distress arising out of unemployment. Moreover, we think that he was correct in anticipating that, independently of the question of giving the money away, public bodies would lose rather than gain by postponing operations. If, as seems likely, a big building boom follows the war, both money and materials will be dearer than they are now. Procrastination is the thief not only of time, but of money also.

To the very valuable series of bulletins giving information that should be helpful to traders who are seeking to make headway in the neutral markets from which German and Austrian competition has been perforce largely excluded, the Commercial Intelligence Branch of the Board of Trade (73, Basinghall Street, E.C.) have added an account of enemy-country dealings in sanitary ware. In exports of this class Great Britain, as might have been expected, is far ahead of Germany and Austria, from which countries the figures were, respectively, £57,100 and £9,110 for exports to all destinations, as compared with Great Britain's total of £556,400. Germany's principal markets for pipes, sole-tiles, sinks, spouts, closet-basins, etc., of common stoneware, and mangers and cattle-troughs, were Switzerland, Russia, Belgium, the United States, and Italy, which are here named in the order of their values, the range of which is from £6,600 to £4,400.

All these values are of course annual, and are not average but actual, the figures relating to the years 1912 or 1913. British manufacturers of sanitary wares are losing about £32,400 a year by being excluded from the German and Austro-Hungarian markets, and in order to compensate themselves they will doubtless make strenuous efforts to capture as much as possible of the sixty thousand pounds or so hitherto taken from neutral markets by the Germans and Austrians. Although these figures may not be very imposing commercially, they have an interesting significance as reflecting the pre-eminence of our own country in sanitary science, in which she not only took the lead, but has steadily maintained it from the days of Chadwick, Playfair, Simon, until now.

Professor S. D. Adshead's inaugural address from the London University Chair of Town Planning will not disappoint the expectation that he would make the most of a great opportunity. Seldom if ever have the ideals and the *rationale* of town-planning been so clearly formulated. It is as if a tangle of many-coloured threads had been deftly interwoven into firm fabric and coherent pattern. Town-planning is beset by many dangers, and, by great good fortune, London has secured for its civic chair the very man who most vividly realises them and who can best show how they may be averted—one who has "vision," but is no visionary; who is practical, yet scorns the mediocrity of that "efficiency" which, while satisfying low ideals, is essentially base. "We must ever," he perceives, "strive after that which we cannot attain." It is blind worship of efficiency as a fetish that has led Germany into her Serbonian bog. By her fatal blunder of ignoring the vital factor of psychology of individuals and of nations she has misconceived the cosmos.

Professor Adshead has a keen eye for vital factors, and is anxious lest an overweening regard for "efficiency" should block the avenues to progress. There is an art as well as a science of town-planning,



and the danger that the one may overwhelm the other—that the stark engineer or the “pretty-pretty” person may, one way or the other, imperil the issue—involves the possibility of hybrid compromise. Town-planning, as conceived by Professor Adshead, does not resolve itself into a stale and pedantic convention—an affair of “rules and recipes”—but is a free and liberal expression of the national and communal genius, of its intellect as well as of its instincts and traditions. It is to represent “a consensus of educated opinion directed to a common end.” Certainly there is inspiration as well as guidance in his soundly philosophical inaugural address.

### HERE AND THERE.

FOR architects, as for everybody else, London is the great magnet, exerting such a strong pull that one is never surprised to hear a local accent wherever members of the profession most do congregate in the metropolis; the Scotch tongue more insistent than any other. And we may assume that matters have been much the same in the past. Hence there is good occasion for the retort that even if London is the attraction, and does all the great things, these things are chiefly done by men from the provinces, rather than by Londoners born. Accepting this as an hypothesis, I set about testing it with the biographies of the chief architects who have gained renown or repute for themselves in England, from John Thorpe to Norman Shaw. Here is the result:

| <i>Architect.</i>    | <i>Born.</i>        |
|----------------------|---------------------|
| John Thorpe          | London.             |
| Inigo Jones          | London.             |
| John Webb            | Somerset.           |
| Sir Christopher Wren | East Knoyle, Wilts. |
| Nicholas Hawksmoor   | Notts.              |
| Sir John Vanbrugh    | London.             |
| William Kent         | Yorkshire.          |
| James Gibbs          | Aberdeenshire.      |
| Robert Adam          | Kirkcaldy.          |
| Matthew Brettingham  | Norwich.            |
| John Carr            | York.               |
| John Wood (of Bath)  | Yorkshire.          |
| Sir William Chambers | Stockholm.          |
| Thomas Archer        | Warwickshire.       |
| James Gandon         | London.             |
| Sir John Soane       | Reading.            |
| Decimus Burton       | London.             |
| Sir Robert Smirke    | London.             |
| John Nash            | Cardigan.           |
| Professor Cockerell  | London.             |
| H. L. Elmes          | London.             |
| George Dance         | London.             |
| William Wilkins      | Norwich.            |
| Sir Charles Barry    | London.             |
| Sir William Tite     | London.             |
| A. W. Pugin          | London.             |
| G. E. Street         | Woodford, Essex.    |
| Sir Gilbert Scott    | Gawcott, Bucks.     |
| Eden Nesfield        | Bath.               |
| J. L. Pearson        | Durham.             |
| William Butterfield  | London.             |
| Alfred Waterhouse    | Liverpool.          |
| G. F. Bodley         | Brighton.           |
| Norman Shaw          | Edinburgh.          |

The list is by no means a complete one; there are several gaps in it, which should be filled by such names as Henry Holland, James Paine, John Vardy, whose birthplace, however, I cannot trace; but it is sufficiently representative to enable one to make a fair deduction. And this must be, that the honours are practically equal; a felicitous conclusion for London and the provinces alike. The list is not one that lends itself to consideration in detail; it carries its own comment.

Last week, when writing of the great dome that covers the Reading Room of the British Museum, I referred to it as only 2 ft. 6 in. less in diameter than the world's greatest dome, that of the Pantheon, Rome, which has an internal diameter of 142 ft. 6 in. But I

was reckoning quite forgetful of mine host, who, in affairs of great size, must necessarily be American. The biggest dome, then, is not on the Continent of Europe at all, but is now rising to completion on the grounds of the Panama-Pacific International Exposition at San Francisco. It is the crowning glory of the Palace of Horticulture, and has a diameter of 185 ft. And even this is not the most colossal construction of its kind that has been attempted, the largest on record being that of the Horticultural Building, which was erected at the World's Fair at Chicago, with a diameter of 185 ft. This last quite “licked” the new one, but it has long since disappeared from view, replaced by a brand-new San Francisco example now under construction, supreme, a steel-frame construction filled in with concrete, rising serenely above the gew-gaw exhibition structure that forms its base.

Since the War has cut off our supplies from America, oak has been the subject of some little discussion, and people have been looking around for a new supply, and for substitutes for oak. It would almost seem that we were parting with the second Age of Oak. And on reflection we must see that the first was the more appropriate one, for oaken rooms were essentially to the period of jerkin and jack boots, as the later Age of Mahogany was consistent with breeches, lace, and powdered wigs—the age of well's Ironsides succumbing to the age of Brocade. And we may note that it was the available supplies that made the Age, and vice versa. As Mr. Cescinsky tells us, “from the earliest times down to the end of the reign of James II. oak was used by the cabinetmaker, practically to the exclusion of home-grown wood, with the exception of pine, sycamore, and even these latter occur only in a small degree. . . . The only trees at this period could be felled, with profit to the wood-cutter, were oaks, for ship and house building.” The old custom in England was to cut down a tree and split it into rough boards with the beetle and wedge, and a wasteful task. Then came the pit-saw on the Continent, and immediately a great extension in the use of other woods, principally walnut, for cabinet chairs. But it was a gradual process. In the reign of Charles II.—when, it may be recalled, floors were strewn with rushes, strangely out of keeping with the dainty boots and gorgeous dresses of the period—walnut was used first for chairs, settees, and smaller pieces that could be fashioned from saplings, and then for larger pieces of furniture requiring wider boards. Always of oak, from the trunks of the older-estimated tree. In due course, however, there came another Age of Walnut, with corresponding changes in the construction of furniture, oaken Court cupboards, buffets, dressers giving place to walnut bureau cabinets, cases, and “tallboys.” But the eighteenth century had scarce run half its length when the Age of Mahogany began to dawn, an Age that witnessed the brilliant achievements of Chippendale, Sheraton, and Hepplewhite. And it has always seemed to me that so far as furniture is concerned, the Age of Mahogany is much nearer to the character of our own time than the Age of Oak, despite the allurements of the furniture dealer's window, which show how “oakish” we can be for a ridiculously small sum.

From the bare outline given above, it is seen that the introduction of a new wood brought about a new Age, so why, in face of a shortage of oak, should we not be either a still newer Age born of a still newer wood—from one of our Colonies perhaps—or a reversion to an old one, a second Age of Mahogany, or a second Age of Oak?



## THE PLATES.

*Architectural Work on the "Aquitania."*

FORMERLY the decorative equipment of the liner was left entirely in the hands of the ship-builders, but with the advent of what are practically floating hotels it became necessary for the architect to take charge of the work: hence we find architects associated with all the large vessels. The "Aquitania," the latest of the leviathans of the Cunard Line, is a brilliant example of architectural decoration on board ship, or rather one should say *was*, for since the outbreak of hostilities the liner has been taken over by the Government, and we understand that much of the interior has been gutted. In the design of her architectural embellishment Messrs. Mewes and Davis were inspired by the colossal size of the vessel, which has a gross tonnage of 47,000, and has a length of 901 ft., a breadth of 97 ft., and a depth of 92 ft. 6 in. from the keel.

The first-class public rooms are on two decks, the "A" deck including a large smoking-room (78 ft. by 44 ft.), lounge and ballroom (74 ft. by 54 ft.), dining-room, hall, and galleries, and veranda café, the "D" deck including a foyer, a dining-room (71 ft. by 93 ft.), and a grill-room (71 ft. by 35 ft.). There are also a gymnasium and a swimming-bath. Second-class accommodation includes a dining-room, drawing-room, lounge, smoking-room, and veranda café; while the public rooms and promenade deck allotted to third-class passengers are of most generous dimensions. The decorative equipment compares favourably with the best modern work in other buildings on land. And the vessel is complete in its more prosaic appointments—kitchen, electric lighting, heating, ventilation, and other matters. The decorative work has been carried out by the following firms: Messrs. George Trollope and Sons and Colls and Sons, Ltd., London; George Trollope and Sons, Ltd., London; Wylie and Lochhead, Glasgow; W. and E. Thornton-Smith, London; Lang and Gillow, Ltd., London; P. H. Rémon and Co., Paris; Marcel Boulanger, Paris; Lenygon and Co., Ltd., London; Robson and Sons, London and Newcastle-on-Tyne; and P. Turpin and Co., London.

*New Government Building, Cardiff.*

Chayns Park, Cardiff, affords the finest example of modern civic centre in the United Kingdom. It is a

large rectangular area bordered by a series of important buildings. First among these are the City Hall and Law Courts, by Messrs. Lanchester and Rickards, which, with the new National Museum of Wales, now in course of erection from designs by Messrs. Smith and Brewer, occupy one end of the parallelogram. On the east side a large area is covered by the South Wales University buildings, by Mr. W. D. Caröe, while on the opposite side are the admirable little Registry, by Messrs. Wills and Anderson; next to this the Glamorgan County Hall, by Messrs. Harris and Moody; while further north still the new Technical Institute is being erected from designs by Messrs. Ivor Jones and Percy Thomas. The north-west corner has been apportioned to the new building for the Welsh Insurance Commission and Labour Exchange Divisional Office, which is to be erected forthwith from designs by Mr. R. J. Allison, A.R.I.B.A., Principal Architect, H.M. Office of Works. This is an admirable design, worthy of its important site. A block plan of the building is given below, and a perspective on page 299. The portion first being proceeded with is shown solid.

*Shop Front, Berners Street, London.*

Berners Street is an historic street, notable especially for the great personages who lived there during the eighteenth century, in houses typical of the period. Latterly the street has changed in character, business firms having established themselves in what were the town houses of a distinguished coterie. And this has meant, inevitably, alterations to the buildings individually. At No. 50, the Carron Company, whose own record, as makers of high-class grates and stoves, goes back to the eighteenth century, have provided new showrooms, the lower part of the façade being adapted to the purposes of a shop front. The work is carried out in white marble, Messrs. James Slater and Keith, F. and A.R.I.B.A., being the architects.

*French Empire Chair.*

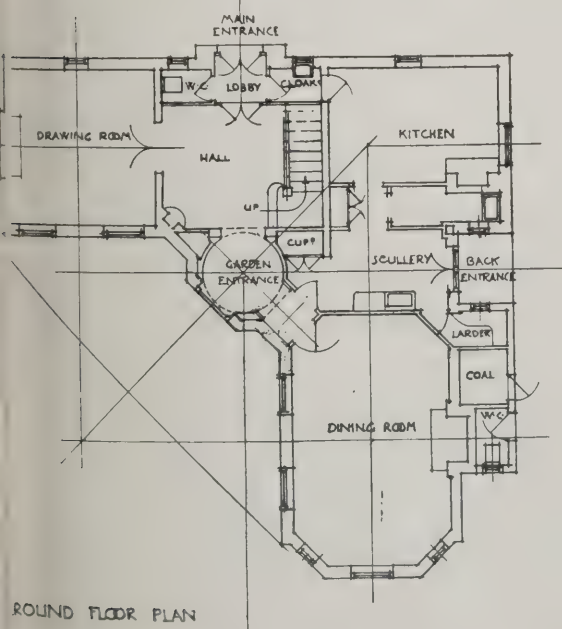
The chair illustrated has a particularly graceful back. It is a model that might well serve for modern work.

*Late Georgian Doorway and Balcony, London.*

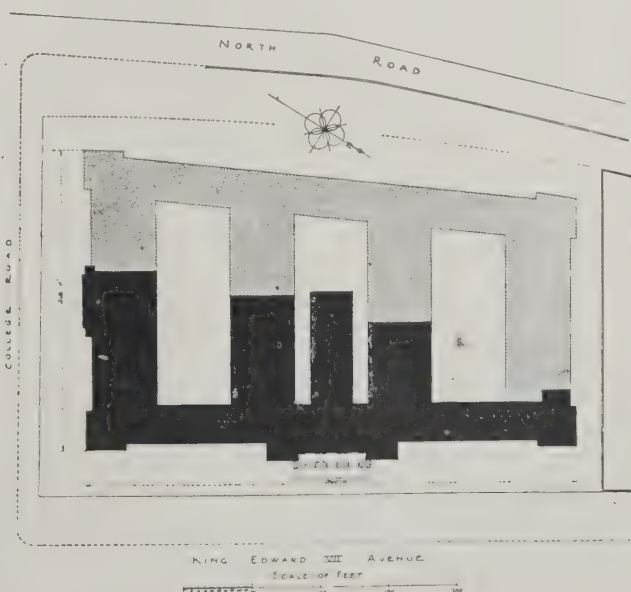
This is very typical of its period, the iron balcony and the fanlight being particularly graceful and delicate.

*House at Ealing.*

The entrance elevation of this house was given in our issue for last week.



HOUSE AT EALING, LONDON, W. ROBERT ATKINSON  
AND GEORGE L. ALEXANDER, A.A.R.I.B.A., ARCHITECTS.



NEW BUILDING FOR WELSH INSURANCE COMMISSION,  
CARDIFF: BLOCK PLAN. R. J. ALLISON, A.R.I.B.A.,  
PRINCIPAL ARCHITECT, H.M. OFFICE OF WORKS.



## THE DEMOCRATIC VIEW OF TOWN PLANNING.\*

BY PROFESSOR S D ADSHEAD, M.A., F.R.I.B.A.

IF town-planning is to be the vital force which is to revolutionise the old haphazard methods of town development, and if it is to be something more than an organised effort to superimpose upon dull aggregations of buildings street pictures snatched without reference or meaning from foreign countries and cities of the past; if it is to be something more than a superficial garnishing of façades, a trimming of projecting corners and a straightening of tortuous ways, then it is important that we study the movements and habits of modern urban populations and endeavour to understand the peculiar genius of the people whom it is to benefit.

The scope and possibilities of town-planning are as yet unrealised. To the mass of the general public town-planning probably means little more than a newly discovered method for preparing by some geometric system a plan for a new town. The architect probably sees in it opportunities for producing continuity in architectural composition, and a means of preventing monstrosities erected by irresponsible people who abuse their individual freedom. The engineer accepts town-planning as a science that will assist him in providing a considerable convenience in the arrangement and disposition of lines of communication and other services. The valuer and economist comes to believe in it because it helps him to understand the difference between the artificial values that have been acquired by, and the natural values that are inherent in town properties. And the social reformer welcomes it as a basic influence that can alleviate congestion and propound principles for slum reformation.

*Greek and Roman Town Planning.*

Town-planning, as we should understand the meaning of the term to-day, is both an applied art and an applied science, which in the past has only been consciously recognised in a very partial way. The world has seen many phases and many methods of town-planning conceived and practised under a multitudinous variety of circumstances. The Greek colonial chess-board plans, as we find them, say, at Priene or Selinus, were laid out for the specific purpose of distributing a prospective population over a number of conveniently disposed building sites. We are told that in the founding of these colonies parties of colonists were conducted by State officials to a selected spot in the new country, where each was given a numbered square on a gridiron diagram. These allotments were only regarded as leaseholds, the State reserving to itself freehold rights. Obviously the object of town-planning with the Greeks consisted in little more than the subdivision of an area into lots convenient for disposal; generally sites for public buildings do not seem to have been provided in the original plan. With temples, however, the case was different: they were usually situated on an acropolis and often outside the confines of the town. It is when we note the site of the agora, the theatre, and the pnyx, or council chamber, that we realise that these public buildings were introduced as afterthoughts, irregularly breaking, as they do, into the inelastic regularity of the simple chess-board plan.

Our knowledge of Roman town-planning teaches us that practically the same system

prevailed here, though architectural splendour was often foreshadowed at the inception of the scheme. In the two main thoroughfares, the *Cardo* and the *Decumanus*, at Timgad in Africa and at Palmyra in Asia Minor there are the remains of noble colonnades evidently designed at the outset to add grandeur to these important main streets.

*Developing the Idea.*

With the ancients, as with all primitive peoples, the main, if not the only, objective in the founding of a town seems to have been to provide well-shaped and convenient building plots—sites that could be easily measured and transferred, and which would adapt themselves to the erection of a repetition of similar buildings. This idea of town-planning seems to have persisted not only with these early peoples, but right through the mediæval period, and, where modern town-planning principles have not been put into practice, up to the present time. We find examples in towns like Winchelsea, and in others founded by Edward VI., of which there are many in the Garonne valley in the West of France. But even more conspicuous are the plans of American towns, and in Canada this square gridiron system of planning is in practice at the present day. One has only to refer to towns laid out under the auspices of the Canadian Pacific Railway, where we see that the practice of retaining certain freeholds is tantamount to what happened in the ancient world more than two thousand years ago.

Strictly speaking, the planning of Hippodamus, and Dinocrates, the architect of Alexander the Great, was the arranging of building sites rather than the planning of a town. So far as can be seen, the direction of lines of communication was never very seriously considered until the sixteenth century, when in Renaissance Rome the *Corso* was constructed and important centres were connected together by cutting new roads through built-up areas. About the same time we find superimposed upon this idea of providing direct access between important centres a desire for architectural embellishment which was carried by the Louis in France to such a degree of splendour as to make grandeur of architectural treatment overshadow all other considerations. This was royal town planning, and it produced the vistril effect of the Champs Elysées, imitated later in the Unter den Linden at Berlin. Applied to open spaces, it may be seen to advantage in the Piazzas of Italy, in the Place Stanislaus at Nancy, at Mannheim, at Carlsruhe, and in the squares dedicated to Louis XV. at Reims and Rouen and Bordeaux.

*Aristocratic Efforts.*

Following these regal and autocratic systems, we get the ducal efforts of an aristocracy as practised on their ducal estates. We have the best examples here in London, where once more the depth and shape of the building plot is the deciding factor of the plan. Symmetry, formality, and axiality, however, still prevail, and architectural dignity clothing residential streets, circuses, and squares gives a completeness to every such scheme.

And so we have had primitive site planning, we have had the axial approach planning of the Kings of France, and we have had the well-ordered systems of the great eighteenth-century landowners; but no-

where do we find town-planning embodying all the democratic ideals that we are endeavouring to realise at the present day?

*Modern Town Planning.*

Modern town planning aims at understanding and satisfying all the various needs and interests of our complex democratic system. It does not confine its attention merely to the economic subdivision of an area into so many building plots. It does not concentrate entirely upon the provision of a convenient network of streets and open spaces. It does not exclude exclusively at providing fine sites for splendid approaches to buildings, nor its objectives attained when it has provided healthy housing accommodation for the working classes. It aims at accomplishing all these things and more. The difficulties are enormous, and much that is today is highly experimental, for we must incorporate all the recently developed methods of transit, and we must develop entirely new methods of construction, whilst we are expected to satisfy a public taste for constant interest, convenience and creature comfort, we must not neglect those ideals which stand for simple repose, grandeur, and increased scale.

Town-planning, to be a success, must command the popular interest; the municipal drawing office must be thrown open to the professional critics, for in this only can civic patriotism be aroused, and the public made interested in and proud of their town. It is generally recognised that successfully to carry a town-planning scheme through the various stages of procedure under the Act the attitude of authority and property owner must be reasonable and broad-minded. The Act provides for conferences between all who show an interest. This provision must be stretched to its utmost limits if it is to be of more than the materially interested are to influence the making of the scheme.

But the dangers of town planning are entirely confined to the too narrow methods of a municipal bureaucracy; there is also danger in relying upon the old recipes for living which cranks and faddists would have us observe if we were to secure what they describe as perfect efficiency. Let me state at once that there is no salvation in mere efficiency—there is no salvation in mere efficiency—there is no salvation in mere efficiency—Germany. We must ever strive after that which we cannot attain. To be efficient one has merely to be satisfied with a low level of mediocrity and sustains it thoroughly. The efficient town planner, the social crank is that which strictly conforms to the ordinary requirements of ordinary men; but in every group of ordinary men it is a strange thing if there is not found an extraordinary one, a human being whose personality defies analysis and commands attention. Above all things, when we are planning for individuals, let us avoid the error of assuming that they can be treated as the subjects of mathematical classification. And it is well to commence town-planning in this anarchical way, for it is over the living and not over living rows of human beings, that we must spread the cloak of communal organisation.

As town-planners planning for a democracy, we should endeavour in all places and in the more closely inhabited areas of a town to introduce a rhythmic continuity or a composition that is symmetrical. It follows, then, that separate tenements will by the realisation

\*Abstract of a public inaugural lecture delivered at University College, London, on October 15, 1914, by William Lever in the chair.



of symmetry need to have their exactly repeated, but each will definite reference to the whole, moreover, every habitation—be it flat, or stately mansion—in one way or another express sign of the individuality of ages. It may be by a difference in the door, it may be by the draping of the curtains in the room, or it may be in the flower-pattern only in the door knocker. Such touches, without encroaching on the "tout ensemble," give what would otherwise be the dead universal conformity.

#### *Some Debatable Problems.*

Herein lies the key to one of the most debatable and difficult problems that the serious town planner: the question whether a town should be planned on a regular or on picturesque lines. There are those who hold that this is entirely a question of topography, and they contend that if a site is level, then the plan should be formal and symmetrical, and regular, submission to nature dictating the treatment should be picturesque. To my mind the question should not be decided entirely upon issues of the nature of the ground. The question in architectural composition is not to me that the tenants who occupy a town are knit together from outside by a stronger than kindred feeling of national combination. A fine architectural composition will always convey a sense of that patriotic emotion which is felt in the presence of organised processions, and the massed decorations of an army; so that a town planned on a democratic, if it is to suggest that the control is to watch over private property, must at certain points conform to the requirements of symmetrical composition and regularity.

It does not mean, however, that we should here to enjoy the interests of a picturesque irregularity. The Englishman's love of his castle, and it is only by making a town appear in appearance to that of his neighbor that he can hope to sustain his local identity. He will paint it a different color, he will plant trees in his garden, or he will have a brass knob on his front door. Whatever the means, as a democrat he must establish his identity.

Now let us consider another phase of the aesthetics of town-planning: the

dangers of ignoring tradition. To illustrate my point, permit me to quote the substance of a paper which I wrote some five years ago after visiting the modern towns of Germany. I then said: "Germany during the seventeenth and eighteenth centuries was unfortunate in lying outside the geographical line of Renaissance progress, and her war with France in 1870 had rendered her æsthetic isolation the more complete. This æsthetic isolation, accompanied as it was by a period of extraordinary activity, explains in a way the unsatisfactory rendering of so many ambitious schemes. The magnificently laid-out station at Frankfurt, the boldly conceived Ringstrasse at Cologne, and the monuments erected to Bismarck and to the Emperor William, fail in giving entire satisfaction on account of the heterogeneous and uninspired collection of detail of which they are composed. After the war Holland and Belgium were ransacked, and the choice morsels of their picturesque detail were misapplied in an extravagant and exaggerated form. About the year 1890 German architects, wearied with their own bad resuscitation of Renaissance forms, and feeling that every possibility for the display of striking individuality had been extracted from this source, had their attention suddenly directed to the fascinating attractions of that style of architecture which came to be known as l'Art Nouveau. The possibilities it afforded for the expression of their many original and scientifically developed conceptions could not be gainsaid, and l'Art Nouveau was seized hold of and travestied with an enthusiasm almost childlike in its ingenuousness. One can only regard it as a movement which was the outcome of an honest yearning after instinctive expression, but which in an intellectual age must necessarily be an affectation. Germany as an empire has gone mad after originality, and in forcing it has severed all connection with the saner methods of her earlier traditions. Traditions are the stepping-stones of sublime moments which traverse the panorama of experience and history, and which continually carried forward will ever be a guide to the true progress of mankind."

Rather than destroy one feature of our lovely old villages, or a street of architecture erected in the best periods of English history, let us, even at some inconvenience, make a detour and develop our towns and suburbs on new ground.

Never has there been a period in history like the present which could offer greater opportunities for the expression of originality, but let us remember that the sort of originality to which we should aspire will not be attained by shutting our eyes to past achievement, but rather in reincarnating a studied selection of old forms.

#### *Conceiving a City.*

The highest conception of a city is an aggregate of human dwellings adorned with associations that are the heritage of time. An old city is the embodiment of history; in a new city history can only be transcribed. The value of the transcription lies in the selection of the things recorded, and not, as the pedant supposes, on the accuracy of the statement or on its value as a mere record. Therein lies the difference between pedantry and originality.

To the artist, the poet, the historian, the town-planner looks for that inspiration which alone can convert what is merely a senseless aggregation of bricks and mortar into a Paradise of fancy linked with the past and heralding a greater unknown. Much indeed is expected of the town-planner, for not only must he look to the convenience of the community, but also be dictator of the arts, leader of fashion in building, and arbiter in matters pertaining to architectural character and style. His calling is indeed a high one, but that this is his vocation is no idle assertion. Even so plain-spoken a document as the Town-Planning Act of 1909 empowers him, in areas under consideration, to determine the character of each building that is to be erected thereon. It is an undeniable truth that a city reflects the character of its citizens, but it is equally true, and a much finer thought, that a great city will inspire its inhabitants to noble deeds. Already since town-planning and housing have captured the imagination of administrators, hundreds and thousands of the wretched inhabitants of slums, crowded like vermin amidst the dust-heaps of an insensate industrialism, are now transported into healthy and attractive surroundings, have habituated themselves to an ordinary existence, and, like wild flowers planted in a garden, have unhesitatingly submitted themselves to culture, flourishing wonderfully in their new condition.

In what way, then, can a city be made inspiring to its inhabitants? In what way can it be made to excite their ambi-



BUILDING FOR WELSH INSURANCE COMMISSION AND LABOUR EXCHANGE DIVISIONAL OFFICE, CATHAYS PARK, CARDIFF.

R. J. ALLISON, A.R.I.B.A., PRINCIPAL ARCHITECT, H.M. OFFICE OF WORKS.

(See page 247.)



tions, lead them to finer achievements, and fire their imagination with the ideals of a nobler life? Only by embodying in its character the noblest associations of the past. To him who reads aright a great city is, indeed, the greatest of all histories; writ on its walls, delineated in its mouldings and ornaments, and felt in its tones and colourings, are the sentiments of nations, as well as the idiosyncrasies of those who individually gave it birth.

The new city must be no mechanical camera outlining in exact profile the sentiment of a jaded Israelite, as we find him wandering in the wilderness during that forty years. Rather must it be a fruitful Palestine, or the Athens of Pericles after the struggle of a Persian war.

No more difficult or vexed question presents itself to the town-planner than what constitutes right character and style. In considering it, it is almost impossible to avoid being dragged into the sphere of the metaphysician, but this cannot be avoided. The expression of style, which is crystallised character, is to-day a very conscious act, and the value of a modern example of architecture lies very largely in the intellectual attitude adopted in choosing the style. The more elementary the civilisation the more instinctive it will be, and, in the complexity of modern art, we must needs make of it a highly intellectual affair.

Those great civic effects which in less conscious periods were attained by autocratic influence, and which depended so much on the persistence of a style, can to-day only be produced by a willing combination of effort, by schools, and by a consensus of educated opinion directed to a common end. As an educationist, therefore, it is the first duty of the civic designer to gather together and focus artistic effort whenever and wherever directed in the building of a town. Only in great cities can man be humanised.

## ENQUIRIES ANSWERED.

### *Rolled Joists for Alteration to Building.*

W. H. M. writes: "In the course of some alterations to a building, steel joists have to be placed under the ground floor in place of walls and partitions removed from the basement, as shown on the accompanying rough sketch plans. Joist A, it is calculated, has to carry a total load of seven tons, made up of floor and partition; joist D has to carry nine tons, made up of load on pavement lights and half the load on joist A; joist B has to carry thirty-two tons, made up of floors, brick wall, and staircases; joist C has to carry forty-three and a half tons, made up of half loads on A and B plus the partition. The joists A and B are to be angle-riveted to C, and

A will be fixed to D at its other end. Is the construction sound? The weights of materials have been taken as follows: Brickwork, 1 cwt. per cub. ft.; partition, 30 lb. per cub. ft.; floor area, 1 cwt. per ft. super."

—The use of the various floors of the building should have been stated: 1 cwt. per ft. super. is too much for a private house, and not enough for a warehouse. In shop premises the first floor is often used as a store or showroom, and although the present use may be for light articles, another tenant might want to use the building for heavy goods. The dimensions given are not sufficient to enable the precise bending moments to be stated, and the results are therefore only approximate. The loads appear to be about right. Joist A with seven tons distributed on an 18 ft. span will require an 8 in. by 6 in. by 35 lb., or 10 in. by 5 in., by 30 lb. British standard beam; joist B with 32 tons distributed on a 12 ft. span will require a 14 in. by 6 in. by 57 lb. B.S.B. This will be better than a joist with top and bottom plates, as being cheaper and less likely to involve delay in delivery, but will not be convenient for fixing. For joist C the loads are, approximately,  $4\frac{1}{2}$  tons distributed,  $3\frac{1}{2}$  tons at  $3\frac{1}{2}$  ft. from end, 16 tons at 7 ft. from same end, total span 17 ft., giving a maximum bending moment as follows:

$$\left\{ \frac{4\frac{1}{2}}{2} (17-7) - \frac{4\frac{1}{2}}{17} (17-7) \left( \frac{17-7}{2} \right) \right\} \\ + \frac{3\frac{1}{2} \times 3\frac{1}{2}}{17} (17-7) + \frac{16 \times 7}{17} (17-7) = \\ 9\cdot27 + 7\cdot2 + 65\cdot88 = 82\cdot35 \text{ ton-ft.} \text{ The distributed load on a span of 17 ft. to give } 82\cdot35 \text{ ton-ft. bending moment will be } \\ \text{found thus } \frac{Wl}{8} = 82\cdot35; \text{ therefore } \\ w = \frac{8 \times 82\cdot35}{17} = 38\cdot7 \text{ tons. This will be}$$

given by two 14 in. by 6 in. by 46 lb. B.S.B., with separators bolted between the webs, but in order to be effective there must be a separator on each side of joist B, say 12 in. apart, unless joist C can be put below the level of A and B, so that they may rest upon it, which would make a more secure arrangement. The footings of the wall above must not be less than 1 in. wide, so as to rest on both joists. If time enough can be given, plated sections may be adopted instead of plain joists.

HENRY ADAMS.

### *Emmett's Architectural Essays.*

G. W. (Aberdeen) writes: "In your leading article in the issue of July 16, 1913, you dealt with Mr. Emmett's book, which is a collection of pamphlets bound together. Will you be good enough to men-

tion the title of the book and the name of the publisher?"

—"Six Essays on (I.) The State of English Architecture (the 'Quarterly Review,' April, 1872); (II.) The History of English Architecture ('Quarterly Review,' October, 1874); (III.) The Profession of an Architect (the 'British Quarterly Review,' April, 1880); (IV.) The English Architecture ('British Quarterly Review,' April, 1881); (V.) The English Urban Leaseholds ('British Quarterly Review,' April, 1879); Religious Art ('Quarterly Review,' October, 1875) John T. Emmett. London: Messrs. Hodder and Stoughton, 27, Pilgrim Street, E.C.4. 1891."

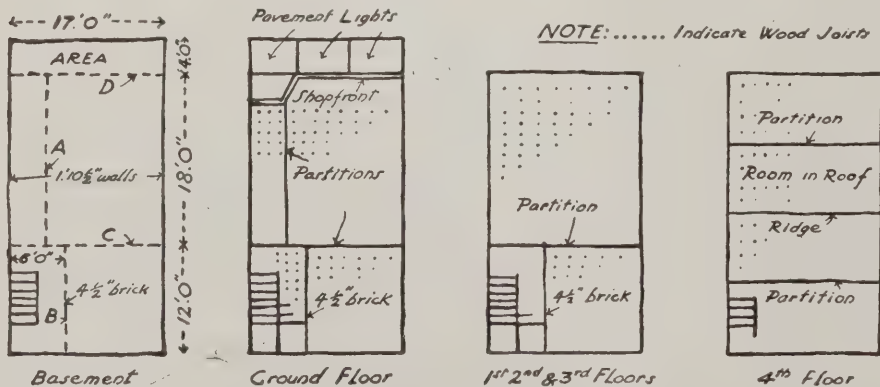
Nos. III. to VI. bear the imprint of Messrs. Hodder and Stoughton, the pamphlet on "The Ethics of Urban Leaseholds" being marked "ninth thousand." The author has a very vigorous and uncompromising style. He holds that the architect should be at least a craftsman. "The architect at Samos, was a modeller in carver; Callimachus, the inventor of the Corinthian capital, was, of course, a carver, and besides he was a goldsmith, an embosser and engraver, a maker of lamps, and, in fact, a very accomplished workman. Phidias was himself a carver and his influence is visible in the temple that distinguishes the propylæa of the Parthenon; he was not, like a modern carver, a mere sub-contractor for the carver's work; but, as the noblest of workmen, he was made by Pericles chief superintendent of the work, architects or master-workmen being under him." Thence follows the argument that "instead of studios and workshops we should get back to the prosaic workshop, and we should recognise with respect, and even with affection, the familiarity, such poor implements as the plain workman's bench and stone-banquer and the forge. We should remember that the imagination of a man is not used, not for the glorification of his work, but that he may have pleasure in his own; that his first duty is soundness. It appears, therefore, that Mr. John Emmett was a doughty fighter in the cause, but his pamphlets are well worth reading if only for their virility of opinion, and much of his destructive criticism of modern architecture would be assent even if it were not enforced by the author's fine turn of ironic humour. The essays appear to be now out of print."

### *Hammerbeam Roof Truss.*

G. J. (London, E.C.) writes: "Enclosed sketch [not reproduced] shows truss proposed for an open-timber roof over a parish hall. I shall be glad of criticism and advice."

—The span of the roof is not named, the scale is doubtful, as a wall measuring 18 in. measures  $\frac{1}{4}$  in. on the sketch, a scale of  $\frac{1}{8}$  in. to 1 ft. the span would be 39 ft., which it is assumed to be. The distance apart of the trusses is also omitted. It is not clear how it is proposed to put the  $1\frac{1}{4}$ -in. rods diagonally through the thickness of the various timbers, including a curved brace 4 in. thick. The 1-in. rods, one each side, would be much more easily fixed and equally effective, but, of course, not so sightly. A single  $1\frac{1}{2}$ -in. rod in the centre could readily be joined to the pairs of 1-in. rods. A king-post should be inserted in the part of truss to take the thrust of the truss. The building would be better for the addition of buttresses.

HENRY ADAMS.



ROLLED JOISTS FOR ALTERATION TO BUILDING.



## ELECTROLYSIS IN RELATION TO BUILDING CONSTRUCTION.—I.

BY W. NOBLE TWELVETREES, M.I.Mech.E., A.M.I.E.E., M.Soc.Ing.-Civ.

It would be impossible to over-estimate the value of scientific research, for everyone knows that the results obtained by investigators in all departments of science have been of the greatest possible benefit to professional men. Unfortunately, however, some people are apt to draw conclusions from the data furnished by laboratory experiments, the interpretation of which demand much discrimination, as if they had adequate knowledge of the subjects involved. Other people are to be pitied who make no serious attempt either to study experimental results or to apply them in a practical way, and who consequently form erroneous opinions in connection with something they may have read in a technical journal. Discoveries in the fields of bacteriology and physiology have recently led to a fruitful crop of practical applications, and it is only by the application of the facts established in connection with other branches of science that we can avoid misconception on the part of those who are in the habit of jumping to conclusions.

Feeling of uneasiness at present exists to no inconsiderable extent among engineers as to the possibility of electrolytic corrosion in buildings where steel is used in the form of important structural members, or as reinforcement for concrete, as a case in point. Remarks are frequently heard concerning the so-called danger threatened to such buildings by electrolysis, and quite recently a technical journal published a sweeping statement to the effect that structures of brick and masonry could not be expected to last as they contained the active elements of self-destruction.

Consequently, we may with advantage devote a little space to the consideration of electrolysis and its actual bearing upon building construction.

In the first place it should be made distinctly what is meant by electrolysis. This is not at all a new thing, but has been investigated nearly a century ago by Faraday, and their contemporaries. In fact, the process has for many years found extensive application in the arts, particularly in electro-plating and electro-galvanizing. In a properly defined, *electrolysis* is the decomposition of a chemical compound (called the *electrolyte*) into its constituent parts by the use of electricity.

When an electric current passes through a system of metallic conductors, no chemical change occurs in the metal, and the effect therein is the production of heat. In a properly designed system the temperature is limited to 30 deg. Cent., and in practice is usually much less. Assuming the conductors to be made of underground pipes or other work unintentionally serving to conduct "stray" electric currents, the rise in temperature is quite inappreciable under all ordinary conditions.

When an electric current passes from one conductor into and through another, and then passes into a second conductor, the consequent effect is the establishment of *electrolytic conduction*. The metal conductors form the electrodes, the end of the conductor by which the current enters the electrolyte is termed the *anode*, and the end of

that receiving the current from the electrolyte being termed the *cathode*.

The nature of the action taking place when electrolytic conduction has been established, either purposely or accidentally, may be thus briefly explained:

On the passage of an electric current through the electrolyte, some of the molecules of the latter are broken up into two constituents, or *ions*, of basic and acid character, respectively. The conduction of electricity through the electrolyte is effected by the transfer of the ions. The basic ions, which are electro-positive, move in the direction of the current and are deposited on or liberated at the cathode without acting chemically upon the latter. The acid ions, which are electro-negative, move against the direction of the current and are deposited upon or liberated at the anode, corroding the latter if the metal is capable of entering into chemical combination with the ions. In addition to its activity in transferring ions from one place to another, the electric current also has the effect of supplying the electrolyte with an amount of a chemical compound equivalent in quantity to that decomposed, but not necessarily of the same composition. Owing to the continuous replenishment of the electrolyte in this manner its conducting power is maintained.

The foregoing explanation refers to direct or continuous current. In cases where alternating current is concerned, the electrolysis produced is generally not more than 1 per cent. of the amount produced by a direct current, but as the direction of the current alternates corrosion may take place at both of the poles which we have designated above as anode and cathode respectively.

One other point should be noted—namely, that to constitute a body an electrolyte three conditions are necessary; (1) The body must be a chemical compound; (2) it must be capable of being fused or of being dissolved; (3) it must, when in solution, be a conductor of electricity. Thus, building materials when dry are not capable of acting electrolytically, but may do so if sufficient moisture is present. But it is most important to bear in mind the fact that there cannot possibly be any electrolysis in a building, even assuming the fitness of the structural materials for performing the part of electrodes and electrolytes respectively, unless electric current is caused to pass through the materials in a suitable manner.

Before considering possible sources of stray electric currents, we ought to say that the rate at which positive and negative ions are liberated at the electrodes is governed by the quantity of current passing and not by the electro-motive force or voltage, except so far as the latter operates in determining the quantity of the current. Although electrolysis can be established at very low voltages, the damage done by it decreases very much with the decrease of voltage, and corrosion of the anode is quite inappreciable at very low voltages. These aspects of electrolysis are discussed more fully in a later part of the present article.

Stray currents of electricity are currents due to leakage from earthed electricity distribution systems, and flowing through the earth, or partly through the earth and partly through underground pipes and structures.

Earthed telephone and telegraph lines give rise to stray currents of such very feeble character that their effects upon underground pipes and structures are altogether negligible.

Electric-lighting installations on the three-wire system, with the neutral conductor earthed as a precautionary measure, do not originate stray currents.

The secondaries of transformers are sometimes earthed to underground pipes, but connections of the kind do not cause the flow of current from the pipes to the earth, and so cannot produce electrolysis.

Electric railway and tramway systems, where the return conductors are virtually earthed by the use of the rails as returns, are the only possible sources of stray currents that need consideration. In the case of systems for the distribution of electricity for lighting and power purposes, the return conductors are always carefully insulated, and in the wiring of buildings every precaution is taken to guard against the loss of current by leakage to earth.

The first and most important point for attention is the fact that, owing to the stringent regulations of the Board of Trade as to the maximum voltage drop, and owing to the increasing adoption of insulated returns in traction systems, the risk of electrolysis is little more than a "bogey" in this country. As a safeguard against the electrolytic corrosion of underground pipes and structures, the Board of Trade require that the difference of potential between the points of a partly or entirely uninsulated return farthest from and nearest to the generating station shall not exceed seven volts. This means that the voltage drop and the consequent flow of stray current in the vicinity of any building near the conducting system must be entirely negligible, even assuming the building to have been placed in electrical connection with the stray current by the intermediary of gas or water pipes with uninsulated joints.

A second point for attention is the fact that no actual case of electrolysis from alternating current has been reported either in Europe or in the United States. As traction companies in the last-mentioned country are free from control by any body akin to our own Board of Trade, the harmless nature of stray alternating currents may fairly be granted.

Although serious trouble from electrolysis does not exist in Europe as a result of stray currents from traction systems, the position is quite different in America. The numerous cases of corrosion which have been reported there have led to much discussion in the technical Press and in papers read before engineering societies, and they have also led to exhaustive investigations into the possible effects of electrolytic conduction upon building materials, such as mortar and concrete.

British architects and engineers have got into the habit—in itself one with which no fault can be found—of studying American technical literature rather closely, and of using American experimental results as data for guidance in professional work. There is no objection to this provided that local conditions are duly taken into account, but it is clearly unwise to apply American experience to British practice without due consideration and discrimination. So far as concerns the prevalent sense of uneasiness on the score of electro-



lysis, there can be very little doubt that it is attributable very largely, if not entirely, to the perusal of American reports and to unfamiliarity with the essentially different conditions governing the employment of electricity on opposite sides of the Atlantic.

It may perhaps be suggested that American traction companies would naturally in their own interests, and without compulsion by Government regulations, take steps to prevent the waste of current by leakage. The fact is, however, that the leakage of current from the rails of tramways and railways, causing stray currents through the earth and along underground pipe lines, does not result in loss, as would happen by the leakage of gas or water. The actual effect of allowing the current to return in part by way of the earth and underground pipes is to increase the total conductivity of the return conductors, and to decrease the voltage loss in the return of the current to the generating station. Therefore actual saving results to the traction companies adopting the simple expedient which is the cause of electrolysis troubles.

If the rails of a tramway system were perfectly insulated they would be capable of carrying the return current back to the generating station without causing stray currents. But the rails are usually laid so that a considerable part of their surface is in contact with more or less damp earth or paving material. Consequently, part of the current intended to return through the rails is diverted into the earth and into the underground pipe line, leaving these extemporised conductors and re-entering the rails in the neighbourhood of the generating station. This description represents average American practice in places where European ideals as to voltage drop have not been adopted, and it may be noted that instead of limiting the loss of potential along the rails to seven volts, as stipulated by the Board of Trade the loss of twenty volts occurs. As the assumed loss of potential for the whole length of the pipe line is only four volts, the economy offered to the traction company by the illegitimate use of other people's property is sufficiently evident.

It should be noted that the European regulations limiting the voltage drop in the rails have had the effect of rendering insulated return feeders necessary, and that by draining the rails of current such return feeders prevent any harmful leakage of current through the earth.

(To be concluded.)

## COMPETITIONS.

### *Rebuilding of the Brighton Aquarium.*

At the last meeting of the Brighton Town Council a discussion took place on the subject of the competition for the proposed rebuilding of the Aquarium. The Council had agreed to spend 175 guineas for premiums and 50 guineas for an assessor's fee in connection with designs for the building, the cost of which was not to exceed £22,000. In moving the proceedings of the committee dealing with the matter, Alderman Colbourne said it would be very difficult, now war had broken out, for any architect to send in a design based on that sum. The committee therefore proposed that the competitive designs should be based on the prices current prior to the declaration of war.—Councillor Jarvis said the recommendation was inopportune.—Councillor Langmaid Heal

hoped it would be years before Brighton was so foolish as to waste thousands upon unnecessary developments on the Aquarium site. And why at this moment of commercial upheaval should they spend £236 for nothing?—The recommendation was eventually carried.

### *Tuberculosis Hospital, Southend-on-Sea.*

Members and Licentiates of the Royal Institute of British Architects are advised that the conditions of the competition for a tuberculosis hospital proposed to be erected by the Corporation at Southend-on-Sea (see list below) are not in accordance with the Institute regulations, and the Competitions Committee are in correspondence with the promoters with a view to their amendment.

### *Society of Architects' Competitions.*

In order that no injustice shall be done to graduates or students of the Society of Architects who are on active service, the Council have decided to suspend all the Society's competitions for the coming session, and, in the case of those on active service, to waive the age limit, so that all may start fair when the competitions are resumed in the following session or when the war is over. The Council have approved the work done by the holders of the Travelling Studentship and Scholarship during the present session. The holder of the former, Mr. Charles Bell, of Aberdeen, receives £25 and a silver medal, and the holder of the latter, Mr. F. M. Cashmore, receives £10. The Scholarship Competition this year only produced two entries—probably owing to the war. The designs were not considered of sufficient merit for the scholarship to be awarded, but a prize of the value of £5 5s. has been given to the winner, Mr. Charles Bell, of Aberdeen.

### *Library at Westbourne, Boscombe.*

For this building the design submitted by Mr. C. T. Miles, F.R.I.B.A., has been accepted.

### *Working-class Houses at Bury.*

The Bury Corporation propose to build at Walmersley eight pairs of semi-detached houses and eighteen houses arranged in two terraces, and have approved conditions of competition.

## LIST OF COMPETITIONS OPEN.

NOVEMBER 14.—ARTISANS' DWELLINGS, SOUTHEAST.—The corporation invite architects resident in the borough to submit designs for artisans' dwellings to be erected in Ruskin Avenue. Premiums of £20 and £5 are offered. Particulars from the Borough Engineer, Mr. Ernest J. Elford, M.I.C.E. (deposit £1 1s.).

NOVEMBER 18.—LAUNDRY AND COTTAGE HOME, HOWDEN.—Plans and estimates are invited by the Howden Board of Guardians for the extension of their laundry at the workhouse and for the conversion of a dwelling-house and premises in St. John Street, Howden, into a cottage home. Premium of £5 to successful competitor. Particulars, Mr. Henry Green, Clerk, Howden.

DECEMBER 4.—TUBERCULOSIS HOSPITAL, SOUTHEAST.—The corporation invite designs for a tuberculosis hospital. Premiums, £100, £50, and £25. Particulars, Mr. Ernest J. Elford, Borough Engineer, Southend-on-Sea. (See note above.)

## SPECIAL LEGAL REPORTS

### **Building Contract.**

#### *Fairfield v. Cooper.*

October 31. Official Referees' Court. By Muir Mackenzie.

In this case the plaintiff, a builder, Cookham, claimed £384 3s. 3d., balance account for work done and materials supplied, the total account being £1,184 3s. 3d., of which the defendant paid £800. The plaintiff built for defendant two pairs of cottages at Cookham and executed certain repair alterations to a house called Westmead also at Cookham.

The Referee, in giving judgment, that there was an agreement between the parties that the cottages were to be built for 4½d. per cubic foot, and the contract provided that the foundations were to be charged at the rate of 9s. per cubic yard of gravel used, the payments to be made monthly upon the full value of the work done. After the work was done a controversy arose, having regard to the value of the contract as to the cubic measurement, although there was not a great difference between the parties' estimates, only dispute arose out of the measurement of the bays, the defendant contending that by measuring the bay the plaintiff would bring into measurement that which was not part of the building. The Referee would adopt the defendant's figure for the cubic measurement. The plaintiff charged for the concrete daywork, and payments were made to the defendant on that basis. He found that the 9s. per cubic yard applied to the cottages, and not to the boundary walls, but it also applied to the drains. Upon the evidence arrived at the Referee's decision that £105 8s. 9d. was payable to the whole contract. In relation to the work claimed for, the defendant admitted that something was due and he agreed the total amount payable in respect of cottages at £159 9s. 10d. As to the Westmead account he found that there was a balance of £15 still owing upon it, in regard to the extra work he decided the amount claimed for it was fair. The defendant was not entitled to the wages which he claimed for wages paid on account of a firm from whom the plaintiff acquired the business. On the whole, he gave judgment for the plaintiff for £277 1s. 2d., the costs of the claim and counter-claim.

### **Contractors' Claim against a Corporation.**

The huge sum of £166,687 is in dispute in an arbitration case which was heard on November 2 in the High Court of Justice before Mr. B. H. Blyth, President of the Royal Institution of Civil Engineers. Messrs. John Aird and Sons were the contractors for the construction of the Albert Dock at Avonmouth, for the Corporation, and commenced the work in 1902. The contract date for completion was 1906, but the work was not finished until 1908, owing, it was alleged, to alterations and large additions. The dispute had been taken to the House of Lords, who had referred it to arbitration. One of the questions raised was whether or not the certificate issued by the engineer was binding, the much-disputed question of the power of the engineer to settle questions in dispute being involved. As to one part of the case the counsel for the corporation argued that the engineers' certificate was final and binding. Evidence having been called for the contractors, the final hearing of the case was adjourned.



## SOCIETIES AND INSTITUTIONS.

## R.I.B.A.

## PRESIDENT'S ADDRESS.

Opening sessional meeting of the Institute of British Architects was held on Monday, November 2. The President, Mr. Ernest Newton, A.R.A., delivered the customary inaugural address, feeling, he said, that this was not the usual accompaniments of a session night of the session. Their members were elsewhere, and although he, as far as possible, to carry on the necessary business of the Institute, he felt the social functions would be out of the question. He contented himself, therefore, with a simple statement of what the Institute had done and were doing to meet the circumstances that had arisen. He

On the outbreak of war the Institute, with the co-operation of other similar bodies, a War Committee. Machinery, being new, has creaked a little. I think I may say that it is now running smoothly and doing useful work. Contributions were also invited for the Prince of Wales's Fund and for relieving distress amongst architects caused by the war. The Institute gave a donation of one guinea in August to the Prince of Wales's Fund. The sum of £249 11s. 6d. has been collected, and £210 has been paid to the Treasurer of the Fund for the relief of distress. We have been able to collect £591 10s. 6d. for the relief of distress consequent on the war to the Prince of Wales's Benevolent Society, which proposes to open a special account for this purpose. The Professional Employment Committee, believing that it is better, if possible, to provide employment than to give doles, is arranging a scheme of work which might usefully employ men whose ordinary practice has been at a standstill. The sum of £162 8s. 6d. has been received specially earmarked for this purpose, and the committee hope to receive further financial support, not only from architects, but from the public generally.

The Selection Committee is concerning itself with the problem of obtaining useful information with a view to special services that may be required by the Government and in organising assistance to carry on the work of those who have joined the Forces. We have already done most useful and important work.

*Architects Serving with the Forces.* The Architectural Association has co-operated more with the military part of the War Committee's programme. Its members, following the high example of self-sacrifice and devotion of Mr. Maurice Webb, the President, have enlisted in the New Army. In connection with this, they have formed the Architects' Volunteer Training Corps. The Association has been able to assist the War Committee and the Regular Forces by acting as a recruiting agency to enlist and train men volunteering for military service in many other ways. The Association has met with the approval of distinguished military officers, and has, I think, been recommended by them as the model to which other unofficial training corps throughout the country should conform.

It is obvious that this important work has been done without expense, and there

is at present no particular fund on which the Corps can draw. The Council of the Institute has made a grant of £50, but further contributions are required. Under the presidency of Mrs. Maurice Webb a committee has been formed to keep in touch with and look after the welfare of the Architectural Association recruits and those whom they have left behind, and I hope, although I know you are receiving appeals every day, that this particular appeal will touch you very nearly, and that all who can respond to it will do so generously. Some copies of the circular have been distributed to the meeting.

I am afraid that so far I have done nothing but call your attention to the various funds which invite donations, but you will nevertheless allow me to say that none of the subscription lists are closed and that contributions to all of them will be welcome.

Architects have responded well to the call for soldiers, and, so far as I have been able to get information, there are probably not far short of 1,000 serving with the colours.

I feel that we have reason to be proud of our young brethren, who have been ready without a moment's hesitation to give up comfortable homes and good prospects to serve their country at a time of need.

*The New Charter.*

In regard to internal affairs, I have thought it right to drop for the moment all controversial matters, and, therefore, no further steps have been taken in connection with the New Charter. I hope that when the time comes for going forward with the work this period of trial and anxiety through which we are passing may draw the sting of controversy, and that we may concentrate on our many points of agreement rather than on those few on which we differ. Let us bear in mind, too, that Fellows, Associates, Licentiates, and men outside the Institute or any other body, are now serving their country under the one title of *registered*, or, rather, enlisted soldiers; any further distinction will be earned by their own ability and bravery.

It has been decided to hold the examinations as usual, but the Council have resolved to postpone the prizes and studentship competitions for 1915 until the year 1916, and that those candidates who, under the age limit, are eligible in 1915 shall be considered eligible for the competitions for the year 1916.

I find that my short address has already grown much longer than I meant it to be, but I feel that I cannot conclude without reference to the terrible havoc wrought by Germany in her mission to spread culture throughout Europe. On the destruction of Louvain we, in common with the Royal Academy, the Society of Antiquaries, and other bodies, sent a protest to the American Ambassador, which was duly forwarded to Washington. Since then we have felt that all further protests would be useless. The spread of culture continues: Reims has suffered irreparable damage, and day by day adds to the list. We can only offer our heartfelt sympathies to our Allies. Belgium has lost priceless treasures, but she has preserved the most priceless of all—her honour. I have said that we can only offer our sympathies, but we can do something more. Many French and Belgian families have come to

England. Let us seek them out and do all that we can, not only to see that their material needs are provided for, but to make them feel that they are welcome.

*Resolution of Sympathy with France and Belgium.*

The President put the following resolution to the meeting: "That messages be transmitted to the Governments of France and Belgium expressing, on behalf of the Royal Institute of British Architects, their profound sympathy with the peoples of those countries in the terrible losses which they have suffered by the destruction of so many of their most famous and beautiful buildings and monuments."

Mr. Reginald Blomfield, R.A., Past-President, said: I would like to second that resolution. I will not make a speech, because, as our president has rightly said, this is not an occasion for speeches. He has given us an admirable résumé of the present serious condition of affairs, and what the Institute and the Association are doing to meet it. But this matter of sympathy with our Belgian friends in the terrible losses they have suffered is a different question. I am not speaking of their terrible losses in men—their husbands, brothers, and sons—but in those beautiful buildings that we architects, of all people in the world, know most how to value. But it is not a matter we can talk upon at all; we feel too strongly upon it. I will therefore simply second this resolution.

The resolution was then put and carried unanimously.

*Future Effect of the War on Building and Architecture.*

At the inaugural meeting of the Nottingham and Derby Architectural Society the president, Mr. Harry Gill, Licentiate R.I.B.A., referred to some lessons to be learned by the profession from the war. Architects must prepare to meet changes in style, perhaps in methods of work, in the cost of buildings, and, more than all, changes in the materials employed. In future they must pay more regard to the needs of the British manufacturer, and rigorously exclude any goods which bore the now odious imprint "made in Germany." The result of the war would be, he thought, that in future flat roofs would be generally adopted for large and important buildings—not to serve as platforms for German guns, but because experience had proved that they could be quickly and effectively protected against assaults of aircraft, while they gave greater facilities in many ways in time of war and danger.

*The Public and Architecture.*

At the opening sessional meeting of the Birmingham Architectural Association the president, Mr. G. Salway Nicol, A.R.I.B.A., said the association proposed to have an annual exhibition of architectural work, which would be thrown open to the public, the object being to stimulate interest in a branch of art not generally sufficiently recognised and supported. It was essential for the progress of architecture that the public should support it. The association wished to take up the position of an advisory body to public authorities who were contemplating important building schemes in order that the many mistakes often made in the initial conception of big projects might be avoided. Architecture depended not only upon the design of buildings, but also upon the skill and



intelligence of those who carried it out; therefore they proposed to use their influence towards the training of skilled craftsmen in the schools of Birmingham. Having referred to the desirability of instituting lectures on architecture at the University, Mr. Nicol mentioned that in Birmingham they had some very fine buildings, but they were not looked after properly. They were often spoiled by ignorant additions and alterations. There was, however, great hope for the architecture of a place like Birmingham if sufficient public sympathy and support were forthcoming.

#### *Hydraulic Cartridges for Concrete Excavations.*

In the course of a paper which he read before the Society of Engineers on November 2, Mr. James Tonge, M.I.M.E., said the hydraulic mining cartridge had been found particularly well suited to concrete foundations, horizontal and vertical shots being arranged at intervals all round the bed and pumped off in turn. About  $3\frac{1}{2}$  tons of material could be excavated per thrust. The appliance consisted of a steel cylinder containing a number of telescopic pistons operating at right angles, which expanded upon the application of water from a hand hydraulic pump attached to the cylinder by a steel pipe. The cylinder was placed in a suitably drilled hole, and as the operation proceeded it was possible to see the rock slowly fracturing, while at the conclusion of the operation the debris was left in good round condition suitable for speedy removal.

### PROJECTED NEW WORKS.

#### *Housing, Brixham.*

The Local Government Board have approved of a housing scheme proposed by the Brixham (Devonshire) Urban Council. The estimated cost is £3,800.

#### *Public Buildings, Derby.*

A scheme, which will place Derby in possession of an extended free library and art gallery and a new school of art, is now in process of advancement by the Education Committee.

#### *Hospital, Kilmarnock.*

Offers are being invited for work in connection with the proposed extension to Kirklandside Hospital, for the Kilmarnock Town Council. Mr. James Hay, Bank Street, Kilmarnock, is the architect.

#### *Additions, Coatbridge.*

Plans have been passed by the Coatbridge Dean of Guild Court for the erection of an addition to the Technical School and Mining College in Kildonan Street and the old Monkland Board School, at an estimated cost of £7,000.

#### *Enlargement, Fulbourn.*

The Fulbourn (Cambs) Asylum Visitors have approved plans for the alteration and enlargement of the asylum and for the provision of an isolation hospital. The scheme of improvement includes the following: New block for forty-four female patients, with flat roof; new administrative block and alterations to existing centre block; isolation hospital; verandah to male infirmary ward.

#### *Sanatorium, Lochwinnoch.*

The Paisley Town Council have approved plans prepared by the Joint Sanatorium Board of the County of Renfrew for

a sanatorium and farm colony at West Michelton and Peockstone, Lochwinnoch. The estimated cost is £51,500.

#### *Walton Park Scheme, Liverpool.*

Liverpool City Council have received sanction to borrow £45,000 for the development of the Walton Park estate in accordance with the designs of Messrs. H. Chilton Bradshaw and G. B. Rowlands, of Liverpool, the architects selected in the recent competition, who have received instructions to proceed immediately with the preparation of drawings, quantities, etc.

### NEWS ITEMS.

#### *Society of Architects.*

Mr. E. C. P. Monson, F.R.I.B.A., F.S.I., will deliver his inaugural address at the meeting to be held to-morrow (Thursday) evening at 28, Bedford Square, W.C., at 7.30 p.m.

#### *New Post Office at Huddersfield.*

A new post office has just been completed at Huddersfield. It is situated opposite the old post office in Northumberland Street, with frontages also to Byram Street, Lord Street, and St. Peter's Street. Mr. C. P. Wilkinson was the architect, and Messrs. Thomas Obank and Sons, of Bradford, were the general contractors.

#### *A Large Asylum Extension.*

The new annexe to the Whittingham County Asylum, near Preston, was formally opened last week. It has cost about £150,000. Messrs. Sykes and Evans, of Manchester and Rochdale, were the architects, and Messrs. E. Taylor and Co., Ltd., of Littleborough, the general contractors.

#### *A Large Plasterwork Contract.*

At the Tower Cinema, Rye Lane, Peckham, now being completed for the Central London Building Company, Ltd., from designs by Mr. H. C. Constantine, A.R.I.B.A.—probably the largest cinema theatre in London—an extensive contract for ornamental and plain plastering is being carried out by Messrs. Clarke and Fenn, of Herne Hill.

#### *Completion of Sheffield Town Hall.*

The work of extending the Town Hall at Sheffield has now been taken in hand, and when finished the building will be complete. A total of £54,389 is to be spent. The principal new feature which is being introduced is the provision of a large hall for the payment of rates, to avoid the congestion of the present offices. This hall will be entered from Norfolk Street.

#### *Reconstruction of the Buchanan Institution, Glasgow.*

The Buchanan Institution School Buildings in Greenhead Street, Glasgow, have been reconstructed under the direction of Mr. Ninian MacWhannell, F.R.I.B.A. The buildings now accommodate 350 boys, who are fed, educated, and trained to a trade in the Institution. The cost of the alterations, which will exceed £8,000, is being met by public subscription, the funds of the Institution left by the late Mr. James Buchanan being available only for administration purposes. Already over £5,000 has been subscribed.

#### *London City Corporation and Alien Enemy Contracts.*

The Streets Committee of the Corporation of the City of London have requested the Corporation forthwith to ask the Government to obtain power for the determination of contracts with companies for the supply of goods imported from any

country with which this country is at war, or manufactured, or partly manufactured, in any such hostile country, and a determination of contracts with companies which are, or were, on and subsequent to January 1, 1914, under the management, or a majority of whose directors, shareholders are or were, during the period, born subjects of any such countries.

### TRADE AND CRAFT

#### *Messrs. Claridge's New Departure.*

Messrs. Claridge's Patent Asphalt, having, from business expansion, grown their premises in Surrey, Strand, are now in occupation of offices at 3, Central Buildings, Westminster, where, on the last day of October, representatives of the Press were met by Mr. William Allback, who, in a but interesting speech, outlined the history of the firm, and mentioned an important addition to its activities.

Messrs. Claridge's Patent Asphalt, Mr. Allback recalled, was formed in 1874 with a capital of £200,000, to work patents acquired by Mr. Claridge within the ensuing five years the firm became so well established as to justify the Board of Ordnance in placing with them orders for asphalted forts, batteries throughout the kingdom. About 1890 the War Office entered into a contract with this company for all asphalted works under the supervision of the Royal Engineers and this contract was held for an unbroken period of forty years, with unqualified satisfaction to the authorities.

A further undertaking into the hands of Messrs. Claridge have entered into a contract under the title of "Clarmac Ltd.," for the production, supply, and application of tarred slag macadam. A new enterprise was started with Mr. Bilston, and the firm have since acquired further properties at Chatterly, in Staffordshire. It is claimed that their slag heaps are some of the best in the kingdom, as they consist of old coke-furnace slag, which is of much greater durability than hot-blast slag. The firm has found immediate favour with the War Office, and orders for it have been received from the corporations or other authorities of Southend-on-Sea, Marylebone, London, Birmingham, Coventry, Wiltshire, and elsewhere.

Although during the past few months or two years—the firm, Mr. Allback said, having been always alive to the power of the Press—the value of advertising—the business has vastly increased, no fear is entertained of a shortage of material in consequence of the war, as the firm have a good stock of asphalted rock in stock and further consignments are en route.

Some of the works that Messrs. Claridge have in hand and on order include the new Mews, Buckingham Palace; new premises for the British-American Tobacco Company, Millbank; Robinson and Cleaver, 10, Strand, W.; Institute of Chemistry, 10, Bedford Square; H.M. Stationery Office, 10, Bedford Street; W. H. Smith and Sons, 10, Bedford Street; L.C.C. school, Emily, Paddington; fire brigade station, Wood; new reservoir, Highters, Birmingham, and one at Llanelly, Wales; Redford Barracks, Edinburgh; Christchurch Cathedral, Oxford; graph offices, Sheffield; Royal Exchange, Manchester, and many others, in many breweries, police stations, and premises of which a representative list would be too long for publication.



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## ELECTRICAL NOTES.

*Accessories for Electric Heaters.*

The rapid development of electric heating and cooling apparatus and of new patterns which we have recently described in this column has created a demand for suitable accessories, because those generally used for electric lighting are not always efficient for the other purpose. Messrs. W. T. Henley's Telegraph Works, Limited, have introduced a new kind of flexible wire under the name of "Thermoid," specially intended for use with radiators, electric irons, and cooking apparatus. This flexible is claimed by the makers to be much better in every way and stronger than the usual types of flexible wires used for the purpose. In order to ensure both strength and flexibility, the conductors are of copper and steel, and this method of construction provides that the cords will not kink, a matter of considerable importance. Not only is the insulation heat-resisting, but the external coverings of worsted and glacé cotton are practically flame-resisting. "Thermoid" wires are made to carry 4, 6, and 10 ampères, and the makers are prepared to send samples to those interested. They report that the introduction of these wires has already met with much success. Messrs. A. Reyrolle and Co., Limited, of Hebburn, have for some long time made a speciality of special switch-gear and accessories of all kinds. They have now introduced some useful plug adaptors for their earthen wall sockets in connection with heating circuits. Just as it is usual to find only one plug socket for lighting in each room, so, unless specially arranged, only one heating or power circuit plug socket is provided. Now, if the consumer requires to use more than one heating or cooking device he is at once faced by a difficulty. One of the devices designed by Messrs. Reyrolle consists of one of their standard sheathed two-pin plugs provided with two of their standard sockets at right angles to each other. Two heating apparatus with flexible cords, having Reyrolle standard plugs at the end, can be inserted into these sockets, and the whole device can, of course, be arranged for earthing. The two sockets may also be arranged in series if necessary for battery charging, etc. A similar device is made with the addition of a switch lampholder as a third branch, for use with a lamp or small portable apparatus by employing an ordinary lampholder adaptor, whilst another can be used for joining together two lengths of flexible.

*The Keith Thermo-Ventilator.*

This interesting apparatus is not electrical, but being combined with an electric fan it comes legitimately within the scope of these notes. The apparatus has been designed with the object of providing a small unit for heating and ventilating premises, and can be extended by adding other units where no central ventilating plant is in use or desired. It is claimed to warm a large volume of air quickly and to distribute it without draught and with small driving power. The Thermo-Ventilator comprises a number of specially arranged steam tubes expanded into an annular base casting, forming the steam and drain header, and below this is situated a Keith open-type centrifugal fan. A sheet-steel casing surrounds the tubes and is formed at its lower end into a suitable conical air deflector. It is necessary that the internal surface of the tubes should be kept as free as possible from water of condensation, in order to ensure rapid air warming, and this is effected satisfactorily by a system of inclined tubes, shaped somewhat like a sheaf of corn. Condensation will naturally take place chiefly over the surface on which the air stream impinges directly, and owing to the inclination of the tubes the water immediately flows to the underside and thence in a narrow stream to the drain header.

In the centre of the bundle of tubes a waist is formed, in which there is placed an internal deflector, so that the air is obliged to pass across the tubes so as to be as much as possible in contact with them. This is a much more efficient arrangement than if the air were to blow endways along the tubes, and it provides for specially large air passages, and therefore for dealing with comparatively large volumes of air with a low-power consumption. Return tubes are used throughout so as to ensure complete circulation of the steam. The Keith Thermo-Ventilator does not circulate the existing air in the room, but by being connected at the top through a duct to the outside, fresh air is drawn from the external atmosphere through the apparatus and delivered under slight plenum pressure, with or without added heat (according to the outside temperature), being discharged below radially in all directions. No doubt, if considered necessary, a suitable washer or cotton-wool filter could be combined with the apparatus to prevent the introduction of dust into the room.



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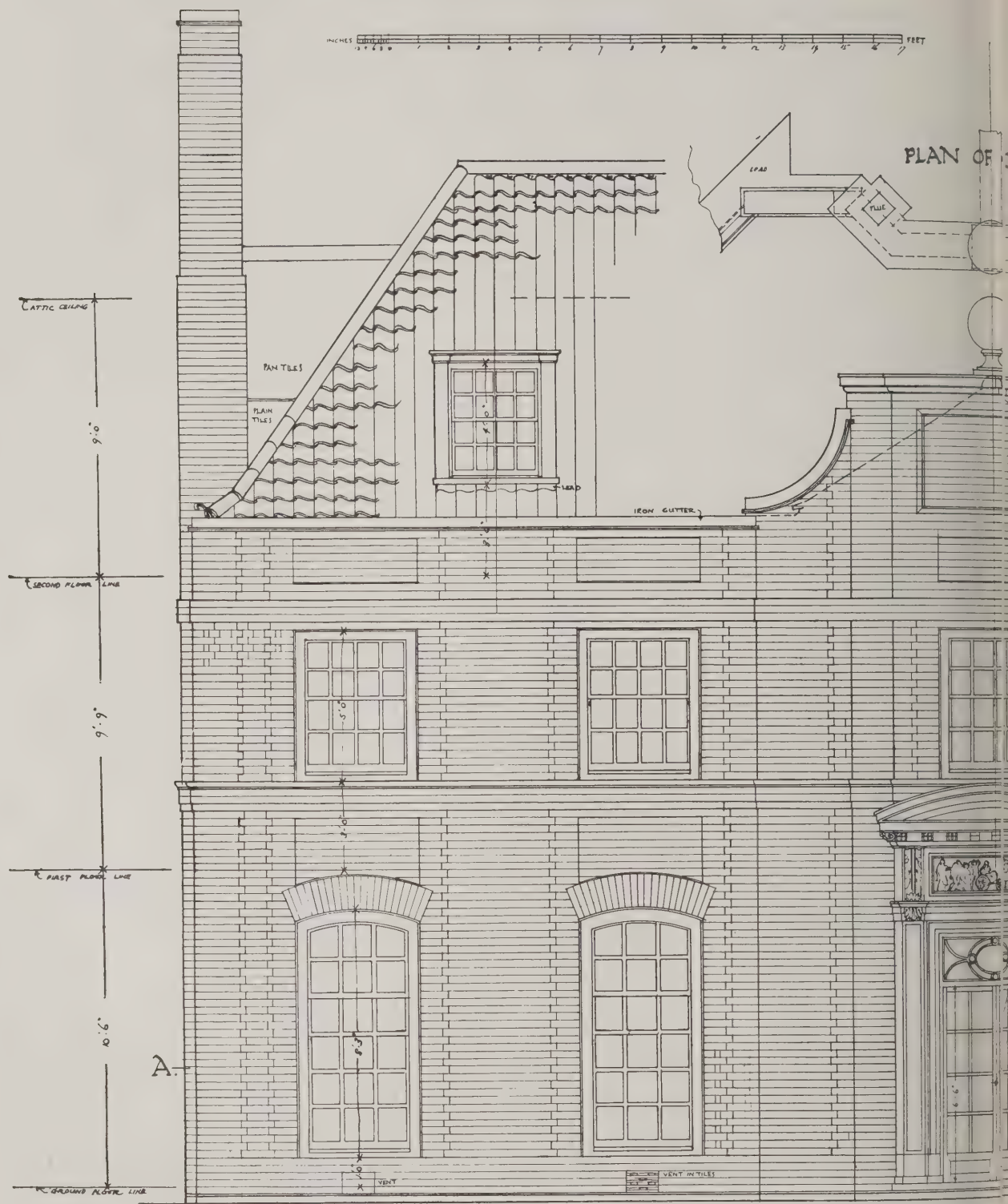
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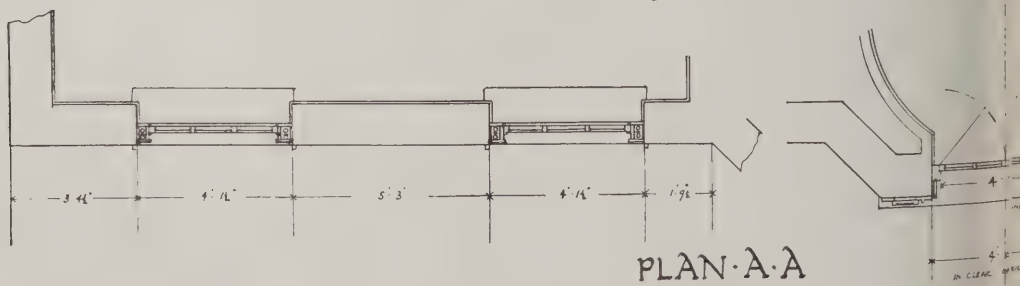


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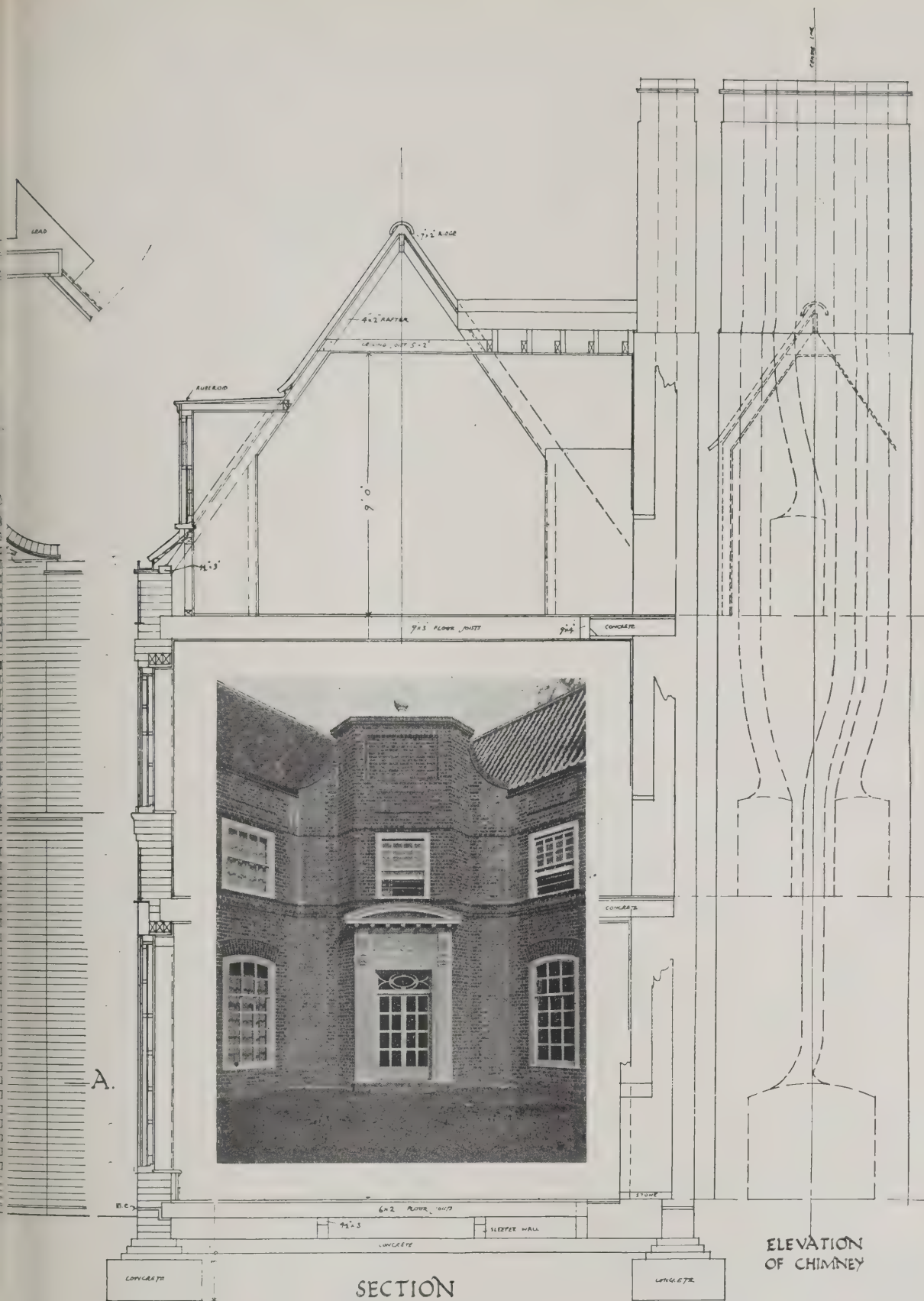
GARDEN ELEVATION



PLAN A-A

WORKING DRAWINGS BY WELL-KNOWN  
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CURRENT ARCHITECTURE. LXXXIX.—DETAIL OF FIRST-CLASS SMOKING-ROOM, S/S "AQUITANIA."

MEWES AND DAVIS, ARCHITECTS.



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*Photo: Bedford Lemere & Co.*

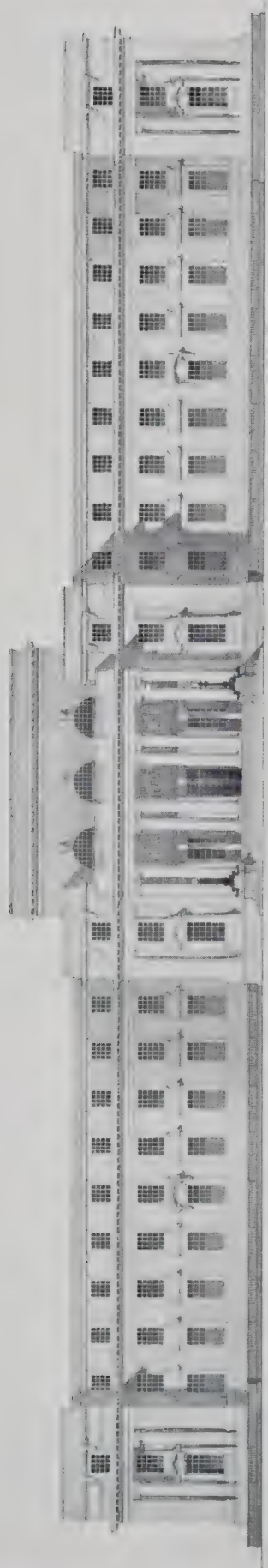
CURRENT ARCHITECTURE. XC.—TOP OF MAIN STAIRCASE, "A" DECK, S/S "AQUITANIA."

MEWÈS AND DAVIS, ARCHITECTS.









CURRENT ARCHITECTURE. XCI.—NEW BUILDING FOR WELSH INSURANCE COMMISSION AND LABOUR EXCHANGE DIVISIONAL OFFICE, CATHAYS PARK, CARDIFF.

R. J. ALLISON, A.R.I.B.A., PRINCIPAL ARCHITECT, H.M. OFFICE OF WORKS.



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# THE ARCHITECTS' & BUILDERS' JOURNAL.

Wednesday, November 18, 1914.

Volume XL. No. 1037.

No. 111.



*(From Piranesi.)*



# THE ARCHITECTS' & BUILDERS' JOURNAL.

NOVEMBER 18, 1914.

TOTHILL STREET, WESTMINSTER.

VOLUME 40. No. 1037

## EDITORIAL.

WHEN the present war is over, the trade war is to begin in deadly earnest. Meanwhile, the Germans are arranging their plan of campaign with the minutest attention to detail, and, indeed, are already skirmishing. A circular on the subject sent out from the New York office of a German firm was thought to be of sufficient importance to warrant a special Reuter cablegram to this country. It is to the following effect: "We are well organised. We have capable men in all important cities, but we have been handling English goods. The feeling of Germany against England is such that we need American goods to sell to our trade. Such American firms as have had their business handled through London will find themselves locked out of the German market." Not much astuteness was necessary to the anticipation of all this. We have already, in a comprehensive series of articles on the changed conditions created by the war, urged our traders to keep alert to their opportunities, and to prepare themselves in every possible way for their rivalry in neutral markets.

It is with rather mixed feelings one sees the announcement that the Master of Christ's College, Cambridge, has furnished the executive council of the Entente Trade League with the names of members of the staff of the University willing to advise British makers of certain goods, of which the list includes electrical goods, scientific instruments, and coloured diagrams. Other "seats of learning" are placing their knowledge at the service of the League, which is therefore, no doubt, in a position to render valuable assistance to trade at a critical moment. Other organisations—such as the Commercial Intelligence Branch of the Board of Trade, the chambers of commerce, and the Architects' War Committee—are working with the same object, if on somewhat different lines; and it is the multiplicity of such agencies that gives us pause, because it is rather confusing, and seems to involve or to threaten diffusion of energy where concentration would be more effectual. In the multitude of counsellors there may be wisdom, but there is also confusion. Is it not possible to combine these and similar agencies into a single homogeneous, authoritative, and responsible organisation—or, rather, series of organisations, each dealing with a separate industry, but all contributing to a central or national bureau of information which should perform the functions of a clearing-house for the co-ordination and rectification of the data supplied by the various special organisations? It would be a great task; but the above-quoted cablegram from New York proves that there is a great and an unparalleled occasion for it.

It was inevitable that much of Mr. E. C. P. Monson's presidential address to the Society of Architects, of which the substance appears elsewhere in the present

issue, should be devoted to the war in its bearing on professional questions. For it is not merely the interests are all-pervasive and all-absorbing, and the presidential address delivered at the present moment must needs contain at least some perfunctory reference to them. Such vital issues are involved in every department of life that it is the plain duty of those placed in a position of authority to do their utmost to be as actual as well as nominal leaders of thought and action within the area over which their influence extends.

Mr. Monson's address certainly contributes in a measure of the practical wisdom of which, at the present crisis, the nation is in need of every part that can be set free for application to changing and fluctuating conditions. He realises that to be a helpful one must be fairly optimistic, and, on the whole, he takes a cheery view of the situation. Of materials, he observes, are already almost exhausted, and their temporary rise was, after all, insignificant in comparison with the increase, during the last ten years or so, by some forty per cent., of which price has risen fifteen to twenty per cent. is consequently increasing stringency of building Acts and by-laws, enhanced cost of labour and materials, and of the burdensome incidence of employers' liability, unemployment and health insurance, and other legislative interference with the normal course of an industry is more extraordinarily harassed than any other.

It is, of course, hopeless to expect any immediate relief from these cumulative burdens; but the "pulling together of all concerned" and the "strict economy of method," which Mr. Monson insists upon as necessities of the changed conditions, should certainly imply a thorough overhauling of all the laws and by-laws which have been found to be almost unworkable in time of peace, and, as we have just seen, have done more to make building dear and therefore scarce than has the outbreak of war. The "drawing closer together of all concerned" would be the more complete and effectual if by any means it could be to include recognition by the workers that they must be prepared to make personal sacrifices for the good of the industry and of the country.

Self-sacrifice, as Mr. Monson perceives, is the lesson of this great war, and the noble example set by the men who are giving up everything for the sake of their country and the Cause should have its reflection in an industrial readjustment. If we are to prosper, nay, if we are to exist—we must all pull together more unanimously than ever before. Already this awakened spirit of comradeship—stimulated, no doubt, by the novel spectacle of architect and builder and labourer fighting shoulder to shoulder in the trenches—



some extent reflected in the heterogeneous composition of the Architects' War Committee; and it is suggested that a round-table conference, representative of all the interests concerned, should be held for the more comprehensive consideration of the present and future position of the profession and of building. Out of this conference—which, on account of its size and of the magnitude and importance of the subjects with which it would have to deal, require many sittings and much sub-division—ultimately arise a coalition board which should be dissolved when its emergency business has been completed, but should continue a career of constantly increasing usefulness in co-operative deliberation upon matters of mutual concern.

Nothing of the kind already exists in the Institute of Architects, which has been called “the House of the building industry.” But, for all its independence and detachment, the Institute is but sectional in outlook; yet it might well be taken as the model, as the nucleus, of some National Central Board of Architects, Builders, and Engineers, having a large general constitution, and therefore being competent to deal impartially with the many questions which, for such a body, are a constant source of frictional energy. “The Parliament of Man, the Federation of the World,” is yet afar off, with Pan-Germanism on offer as a substitute for it; but a Parliament of Architects—professional, industrial, and intermediary—is to be within the area of practicality; for our mission of it is, after all, merely an extension of Monson's predicate.

Far more inimical to this idea of federation instead of antagonism of interests are Mr. Monson's remarks on federation and his reference to contracts; for on these subjects he foreshadows disruption rather than union. His Society is determined to persevere in the object which is said to be the soul of its existence—Registration. Apparently, the Institute and the Society are to go on everlastingly approaching each other like the electrically charged pith-balls *in vacuo*, and obviously this does not make for consolidation of interests. Moreover, though it is understood that the Institute, in consultation with other organisations, has the recognised form of contract under revision, the Society nevertheless replays the issue of another form; and here, we seem to be travelling towards anarchy rather than towards economy of forces. So that while the Society professes to be seeking peace it is not doing it. No doubt the fighting spirit of our race is a splendid national asset; but it is too good to be lost on internal strife. We suggest to Mr. Monson the application of his excellent idea of a round-table conference.

Lieutenant Philip Walter Rudolph Doll, of the 8th (Liverpool) Regiment, who was killed in action on October 31 near Ypres, was the fourth son of Mr. Charles Fitzroy Doll, F.R.I.B.A., and was in his 27-fifth year. In expressing the utmost sympathy to the bereaved family, we trust that in due season natural grief will in some measure give place to proud and precious memory of a hero who bravely gave his young and promising life in a just cause. All who read these lines will deplore his loss; but it was a noble sacrifice. *Dulce et decorum est pro patria mori.*

The progressive decrease in unemployment recorded in the official statistics is doubly welcome, as indicating not merely a diminution of the hardships of the war, but a steady approach towards normal conditions,

and, in a corresponding degree the restoration of public confidence. On November 6, the latest date for which the figures are available, the percentage of unemployment in the insured trades, the chief among which is the building industry, had fallen to 3.92, as compared with 3.69 a year ago, and with 4.16 and 4.80 for the week and month respectively preceding in the present year. The number of men on the Labour Exchange registers showed in one week (ending November 6) a decrease of more than a thousand. Making due allowance for the assumption that many of the unemployed have joined the colours, and that others have filled vacancies created by the call to arms, it would seem nevertheless that business is making a really remarkable recovery from the partial paralysis which ensued on the first shock of the war. And yet there should be no surprise at the recuperative power and resiliency of a nation with a history such as ours, and it was surely not too much to expect—as we have done consistently and with unwavering confidence—that the splendid spirit of our fighting forces would be reflected by those whose more prosaic duty it is to carry on “business as usual.”

In presenting to the British nation the collection of his own sculpture which has been recently on view at the South Kensington Museum, M. Rodin has given the latest and greatest proof of the noble and lavish generosity of which so many instances have been already recorded. We had occasion to refer to this princely trait in recording, a few weeks back, his gift of the “Burghers of Calais” group, when, moreover, it was recalled that in making the original statuary, of which the replica has been set up in the Victoria Tower Gardens, the sculptor had, at his own expense, made a group of figures instead of the solitary effigy of the Mayor which was the subject agreed upon for a somewhat meagre commission. And now M. Rodin has surpassed himself by giving us the fruits of many years of artistic travail.

The gracefulness with which this good deed was done was worthy of the action. Says M. Rodin, “The English and the French are brothers; your soldiers are fighting side by side with ours. As a little token of my admiration for your heroes, I decided to present the collection to England. That is all.” It is much. As Mr. Pease, our Minister of Education, wrote in acknowledging M. Rodin's munificence, “Your generosity has forged a new bond between the two nations.” He added, “In the name of the Government I accept this priceless gift with the greatest pleasure.” No matter how sharply divided the worshippers and the detractors of M. Rodin's art, they are at one in whole-hearted admiration of the fine spirit in which his gift has been tendered at an opportune moment, and criticism is wholly disarmed.

In his presidential address at the opening meeting of the session of the Surveyors' Institution, Mr. Howard Chatfield Clarke reviewed with great thoroughness—indeed, well-nigh exhaustively—the present position of the housing question. Quoting a recent estimate that ninety-nine per cent. of the working-class dwellings in this country have been provided by private enterprise, he proceeded to discuss the important question of the likelihood of the needs of the community continuing to be met through this agency, and he found that many and divers circumstances—the adverse influence of the 1910 Finance Act; the general rise in prices of materials and labour, the increasing burden of the rates, the growing difficulty of obtaining suitable sites, the absurd stringency of by-laws and the constantly increasing responsibilities put upon property-owners—are combining to check and discourage the speculative builder.



## HERE AND THERE.

A CONTEMPORARY journal is troubled in its mind as to what sort of illustrations architects want. The obvious answer is that they want the sort of illustrations that appear week by week in THE ARCHITECTS' AND BUILDERS' JOURNAL! But setting that aside, and assuming for the moment that all the discernment and all the worth are not centred in a single place, one may attempt some general review of the position. To begin with, we may note that architects certainly cannot get on to-day without their professional journals. They have absorbed their weekly dose now for more than half a century, and it might be assumed that the accumulated store of illustrations was enough to supply all possible needs for years to come. One might ask how architects managed to exist when no weekly journals were provided for their delectation, and the reply might be that periwigged architects in practice, say, about 1760, were doing much better work than their brethren to-day.

In a discussion like this, one might opine that the advent of the professional journal did not send architecture bounding forward to greater and more glorious achievements, but synchronised rather with a period that saw English architects embark upon the destructive adventure of the Gothic Revival. The fact is, however, that whether architecture has or has not benefited by architectural journalism, architects to-day cannot get on without their weekly journals, which are meat and drink to them. Each and all could, of course, tell the Editor how he ought to set about his business, and I have no doubt that each and all might produce a very creditable, even an admirable, single issue, just as, on more than one occasion, a leading comedian has taken over the direction of an evening newspaper, and delighted everybody; but the charm will not work continuously, and the better qualified Editor resumes control: which brings us back to the question, What illustrations do architects want?

The notion that a right and proper solution of the mystery may be attained from a symposium of views seems to me foredoomed to failure. Out of many mouths proceedeth wisdom, but, beyond a certain concurrence in generalisations, of no worth at all, there must necessarily be a substantial proportion of contradictory opinions. Some are for modern work only. Show us what the general body of architects are doing in this country. And a beneficent journal shows them wiry line perspectives of little villas, or cunning bird's-eye views of the large country houses that are done by F.R.I.B.A.'s of the hierarchy; or perhaps photographs of cast-iron commercial premises, restless and undignified. That, without doubt, is what the general body of architects are doing: a walk through any town will offer abundant proof. And though it may be the vernacular of 1914, it is not the kind of stuff that architects will thrive upon. Modern work we are eager to see, but let it be good work, like that delightful building for the Cunard Company in Cockspur Street, by Messrs. Mewès and Davis, which was illustrated in this Journal last week. The difficulty is, that there is not enough work of high quality being done in this country to-day to meet the insistent call for more and more architectural plates. So what better than to turn to old work for the rest of our architectural substance? There were architects in England a hundred years ago whose domestic work and civic work are a delight to study. Many times have I referred to this in these columns, as well as to the work of the preceding century, the work of Georgian times. And there is the magnificent achievement of three centuries of French architecture at hand to inspire us, while further back still the great Italians,

the greater Romans, and the greatest Greeks all as subjects worthy of the best manner of illustration.

In the realm of modern civic work nothing is done that equals the magnificent buildings of the United States. Whether American architects themselves in French methods or whether borrowed wholesale from the Romans is of no consequence in face of the splendid scale and refined taste that characterise their railway termini, their libraries, baths, and other public buildings. The result is that they went to great sources for their inspiration. English architects were busy sketching pretty bits of Normandy and architectural scraps in France. The sketch-book has been the bane of architects in this country for the past half-century. With pen and pipe in mouth succeeding generations squatted in front of the half-timber house with carved barge-boards and fanciful finials, and spoiled many a good page with indifferent sketches of the village church and the village pump, noting fully the scantlings and the mouldings: and so on with much content, to quote our Pepys. But there has been no guiding principle in it all, and these elementary jottings never taught anyone the principles of design nor the secrets of craftsmanship. The unquestionably a broader outlook obtains, to the benefit of modern architecture. But there is a great deal to be done, and the professional journal will help on the movement by the publication of drawings and photographs that are imbued with a sense of large scale, good composition, and refinement in detail.

It is of no moment whether or not our work may be like some other good work of the past. Better a replica of a building possessing real merit than the creation of our own possessing none. "A poor imitation but mine own" is not a happy estimate of one's work. After all, Solomon's adage, that there is nothing new under the sun, might well be taken to heart by architects. We need not set out to be copyists, but equally we need not set out to be original. Some of the most villainous buildings that have ever been perpetrated have been done by architects who were determined above all things to be original. This aspect of architecture has only developed since architects became superior self-conscious persons. As I have remarked before, if they were only to stick to a thing and do it well we should applaud the result. The trouble is that they will try to improve on the model and in nine cases out of ten they spoil their work exactly to that degree. There is in this issue an illustration of a detail of architectural work on the *Aquitania* in which is incorporated a bas-relief "after the style of Clodion." Without a biography at hand, I am at a loss for Clodion's date, but he was before Cipriani, who, in the wall decorative paintings, did for Sir William Chambers what Angelica Kauffmann did for the brothers Adam and in both we may note the same amorini floating in shells in a delightful sea and blowing away lustre from conches; from which, of course, we shall deduce that Cipriani copied Clodion: but on the Fountain of the Innocents in Paris you will see some carved panels where Jean Goujon long years before had produced precisely the same thing, and we may be sure that the story does not start with Jean Goujon. Nevertheless that does spoil our liking for the panel on the *Aquitania*. And in the matter of architectural decoration the position is similar. Every problem, properly handled, will provide its own individual solution, but in the development of it the great work of the past may be used to good purpose: the good work of the past is too, so long as an architect is a vigorous soul who fears neither the comment of his fellows nor the legal tangle of the Copyright Bill.



## THE PLATES.

*The Scott Monument, Glasgow.*

LAND'S greatest romanticist is worthily commemorated by a monument in the two chief cities of the North, and if one had to make a choice between them we think it would be in favour of the Scott Monument in Glasgow. This stands in the centre of George Square, a tall fluted Doric shaft on a substantial pedestal and rising to a height of 150 feet, the capital being surmounted by a colossal statue of Sir Walter by H. Ritchie. The Edinburgh monument is of Gothic design, whereas that at Glasgow is Classical, such orthodox forms as the column, rosettes, bead-and-roll, and the guilloché being used with commendable restraint, while the lionesses introduce an essentially British element. The base of the monument, which was erected in 1838, is of solid Rhind.

*Architectural Work on the "Aquitania."*

Published last week two views of architectural work on the great Cunard liner, the *Aquitania*—a view of the top of the main staircase and of one end of the first-class smoking-room—by Messrs. Mewès and J. J. P. We now give a third illustration from the same ship, a detail of the staircase wall with a fine composition of Classic architecture and sculpture (the Colosseum, the Arch of Constantine, the Gladiator, etc.), by Pannini, framed in an ornate border and flanked by pilasters of the Corinthian Order. Below is a bas-relief panel in the style of Clodion. Genuine antiques and replicas of antiques are a feature of the *Aquitania*. In the first-class smoking-room are two large decorative panels after Claude and a fine portrait of James II. by Kneller, from originals in the National Gallery. Most of the carved trophies in this room have been copied from old ships at Greenwich, notably the *Swallow* of the *Seas*, built in 1637. In the first-class saloon is a genuine Dutch ceiling painting, and a striking piece of decoration is a reproduction of a famous Mortlake tapestry representing the interior of Solebay. The Louis XVI. salons are filled with reproductions of decorative paintings after Robert, while a fine series of prints after Rembrandt, Van Dyck, Velasquez, Rembrandt, Reynolds, Turner, Rough, Romney, and Raeburn embellish the other suites.

*A Liverpool Improvement Scheme.*

A design illustrated, by Mr. F. Jenkins, of the School of Architecture of Liverpool University, shows a scheme for an improvement in the Haymarket, near St. George's Hall. It was prepared in connection with the competition for which Sir William Wilson Jones gives annual prizes to the value of £50, the prizes being given to the winning students in the first instance dealing with the site of the projected improvement and the second students proceeding later to make designs for the buildings. In Mr. Jenkins's scheme the tall buildings on the two blocks of buildings on either side of the Haymarket are intended to be used as office premises.

*French Empire Chair.*

There is nothing to be said in connection with this chair that has not already been said in connection with the other chairs already illustrated in this series. The chair itself is the main interest.

*House at Esher.*

A special point to note in connection with this little house is that it is a complete unit, not part of a larger scheme. For this reason the treatment of the front window is especially appropriate. As it is a single element, the window, with its delicate proportions, is very pleasing, whereas the effect would have been tame, even distracting, were this single

element repeated again and again on the same façade. The value of the balcony as a decorative feature is considerable. The ironwork is very characteristic of its period, when the Classical tradition was drawing to a close.

*Drawing-Room in House at Liphook.*

This forms part of the additions and alterations carried out at "Ripsley House" under the direction of Mr. Harold Falkner, of Farnham (who is at present serving with the Forces). The drawing-room is panelled out, with arched recesses on one side of the mantelpiece, and has an oak floor.

*Working Drawing of Country House in Connecticut, U.S.A.*

Architects in the United States are fond of the old Colonial work, and certainly its refinement is a quality that appeals strongly. In the present case all the familiar characteristics are reproduced, and the result is a very pleasing piece of work. Our illustration is taken from "Architecture."

*Shop Front, No. 50, Berners Street, London.*

We much regret that two errors crept into the description of the above, illustrated in our issue for last week. On the plate the work is correctly ascribed to Messrs. John Slater and Keith, F. and A.R.I.B.A., but in the letterpress the architects are incorrectly referred to as "James" Slater and Keith. Further, the work is described as being executed in white marble, whereas it is of Portland stone.

## CORRESPONDENCE.

*The Late H. H. Richardson.*

To the Editors of THE ARCHITECTS' AND BUILDERS' JOURNAL.

SIRS,—I was glad to see, in an editorial in your issue of November 11, the interesting reference to the late Henry Hobson Richardson, but I cannot wholly agree with the observation that he was "one of the best as well as one of the most prolific American architects of his day." "Prolific," he certainly was, but, from what I know of his work, I should not place him in the front rank of the fine body of American architects that America has produced.

S. S.

[Our correspondent does not allow sufficient weight to the qualifying clause "of his day." He lived in rough-and-ready times, and, as we said, he was perhaps the first of his countrymen to produce architecture that deserved the name. Our praise of him was relative.—EDS. "A. & B. J."]

*Substitutes for Austrian Oak.*

To the Editors of THE ARCHITECTS' AND BUILDERS' JOURNAL.

SIRS,—With reference to your recent editorial on H.M. Office of Works and Austrian oak, it may interest readers to know that I bought a considerable quantity of the first consignment of Japanese oak which was imported into this country. I paid 1s. 1½d. per foot cube for it and am now having to pay 2s. 8d. for exactly the same timber. These prices were for beams or sleepers; the price for logs is much more, but even then it is far below the average price of Austrian oak before the war. Many speak well of Japanese oak; they say it approximates to Austrian oak in colour and texture and in working.

English oak is undoubtedly the best oak of all, but it is most difficult to work, and it is so subject to hard knots and to variations in density of the grain that it will not stain up or present the same uniform appearance as milder foreign oaks. It is, therefore, unsuitable for cabinet work or internal joinery unless most carefully selected—which involves disproportionate waste.

J. H. KERNER-GREENWOOD.



## THE CLASSICAL TRADITION IN THE WEST OF ENGLAND.

THE MARKET HALL, TRURO: DAMAGED BY FIRE, NOVEMBER 11, 1914.

ON January 20th, 1846, the first stone of the Market Hall at Truro was laid by the Mayor, who remarked at the close of his speech, "One venerable relic of ancient times has been carefully preserved; and, as it held in our last two market houses a conspicuous and suitable place, so a conspicuous and suitable place will be selected for it in that which is about to be erected. I allude to the old stone on which the following words are engraved:

'Who seeks to find eternal treasure,  
Must use no guile in weight or measure.'

The date of this stone is 1615."

The stone with the motto was accordingly built into the new wall, and in the following year, 1874, the new Halls and Market were opened.

In the West of England during the first half of the last century a broad rendering of the Classical mode had been successfully attempted by John Foulston, and when he retired from practice in 1835 his quondam partner, George Wightwick, carried on an Italianised version of Foulston's renderings. But various other agencies were at work supplementing the main trend of affairs. For example, Harris, of Bristol, was engaged in building the Town Hall at Penzance in the Greek manner. Trownson was attempting Gothic flights of imagination; and Christopher Eales, of London, was busy erecting the Market Hall at Truro, the town hall and markets at St. Austell, as well as several houses in the district. Christopher Eales appears to have been greatly influenced by the palazzo character of Sir Charles

Barry's works, such as the Travellers' and R. Clubs—his work at Truro shows the influence strongly. A wise adherence to such models enabled the architect to produce a building of convincing scale."

The site is an irregular parallelogram, on the side of Boscawen Street, containing an area of 3,000 yards. The extent of the site determined the architect to apportion the design into three groups, namely, the northern building (see illustration), the southern building, towards the Quay; and the middle building which occupies the central area.

The main building was studied to be seen from Boscawen Street; the frontage is over 90 ft. in length and the cornice is 50 ft. from the ground. The building is of a beautiful colour, due to the employment of Carn Brea granite, accurately dressed and polished.

We can enjoy the following carefully worded description which accompanied reports of this structure at the date of its completion: "The building has a rusticated basement, with four openings in it, the doorways and arches being vermiculated. The basement is surmounted by a continued cornice of the Doric Order, the frieze and soffit being charged with triglyphs and medallions. From this cornice the principal storey rises, having five windows therein with suitable dressing, surmounted by tympana, the arches being angular, and the two intermediate circular. Beneath the windows panels are formed between the consoles under the sills. The rusticated quoins of the building are continued up to the cornice, which surmounts the whole frontage, 4 ft. in depth.



THE MARKET HALL, TRURO (DESTROYED BY FIRE LAST WEEK). CHRISTOPHER EALES, ARCHITECT.



projection of 3 ft. 6 in., supported by deeply consoles, with panelled frieze and sunk soffit

is useful catalogue of the attributes making design of the façade might be added the character of the design is official and the simplicity in the grouping of the and openings below, the subordination of the nice to the majestic scale of the cornicione, effective contrast between the vertical clock the strong horizontal lines give the building of dignity which soars above architecture of vel type.

ion, of course, must be taken to the alternated s over the first-floor windows. Had these been kept similar, the gain in rhythmic com- would have been considerable; as executed, ation of *motif* produces a sense of motion at a he building where repose is most needed.

esign of the basement storey is a well example of masonry; the adjustment of point, together with the consideration given e and the treatment of the granite, puts to e insipid channellings and groovings in stone modern architects are pleased to term

ree central openings in this façade lead to a 90 ft. by 40 ft., which is further divided into ents by square piers of granite. On the first opposite to the Council Chamber is the great ft. long by 36 ft. wide and 25 ft. in height. the Quay is the rear façade, also of granite, as a simple composition of three parts, a centre and two wings. This front is only height from the pavement, but the treatment pathy with the Italian mode.

ut the purpose of this article unduly to praise ecture of the last century, or, for that matter, to ny one period of development over another. e modern work which disfigures so many owns is compared with the achievements of quarter—even the first half—of the nineteenth century, then the change in the vulgarity of to-day will become more It is to be hoped that the necessary repairs fected on the lines designed by the architect, her Eales.

A. E. R.

## CLASSIC INFLUENCE AND MODERN DEVELOPMENTS.

time when sociologists are discussing the y of society toward the unfit who do ve in large numbers and the means a those numbers may be reduced, when and political scientists are discarding old when the discoveries in every field of r to-day are tending to repudiate the of yesterday, when the note of modernism is ounded by leaders in the arts of literature, painting, and drama, it is difficult to under- acknowledged stagnation in the practice of ure. Architecture as a living art has not kept s development with the march of civilisation, eproach under which it is fallen is distinctly both to the attitude of the public and of the sn.

en have said, looking back on the periods of nd invention, that the gamut has been run. r variety of design or composition is possible, y conceivable combination of architectural s been accomplished. They have expressed r less admiration as their temperament, taste, on impelled for the examples of particular t the consensus of judgment seems to award of perfection to the architecture of Greece, to

maintain it as a standard of beauty, and to declare the Parthenon the noblest example of architecture in the world.

For a century, writes Mr. Louis La Beaume, in the "Brickbuilder," we have been helpless as the devotees of fashion awaiting the *pronunciamento* of some Redfern or Worth of architecture, and we have received their dictum with unprotesting docility. Here and there a heretic has risen up and proclaimed his conception of the truth only to be howled down as a dangerous innovator. The safe and sane are in the lead. We cannot presume to compete with the masters of the past. We must venerate them and, since imitation is the sincerest form of flattery, we must imitate them. Thus Mr. La Beaume summarises the arguments of the "safe and sane."

This, then, is the condition of architecture to-day in America—a chaos in which whim, fancy, or the fashion of the hour dictates what model to follow, what master or school to plagiarise. As a result there is scarcely a building of note in the world of which several versions more or less grammatical do not exist. In New York alone, for instance, almost every Italian *palazzo* of importance, from the massive rusticated semi-fortress type of the Ricardi with its heavily barred windows, the stronghold of the Medici, to the light and fantastic Gothic and late Renaissance fabrics that front the Grand Canal, may be seen in duplicate. Buccaneers of the business world boast possession of faithful reproductions of the *châteaux* and castles of royalty. Marie Antoinette's Petit Trianon may be found literally scattered over the country; and Chenonceau, once the cause of so much bitterness between the neglected Catherine de Medicis and the pampered Diane de Poitiers, now stands on Riverside Drive. The examples might be multiplied *ad infinitum* of these architectural snares for archæologists to ponder in future years.

As a matter of fact, this catholicity of taste is not strictly confined to American cities, but of all peoples the French seem least open to criticism on this score. From the hour when France first began to feel the influence of the Renaissance, French architects have been alert to develop and freely use Classic forms bequeathed to them, with the result that the social and political history of France may be clearly traced in her architectural monuments, one epoch succeeding another in natural sequence, and each bearing the distinct imprint of its time. Realising that conditions change with the change of customs, and the introduction of new materials and methods of construction, the French architect seeks to meet these new conditions fairly.

The charge that all the changes have been rung is being continually disproved in France, and buildings are being erected every year, modern in their very essence and as original in their way as the Parthenon was in its way. Some of them may be said to be as perfect also.

The province and the aim of the architect of to-day should be to take the conditions as he finds them and create an architecture to fit them: not to distort and cramp them to fit the architecture of another day. Where new problems present themselves as in some of our commercial work, no precedent existing, we are forced to this procedure, with the result that critics see in this sort about the only thing they can commend. With the introduction and larger use of burnt clay, concrete, iron, and glass, we shall be thrown more on our own resources, forced to invent more as it becomes less possible to plagiarise.

Do not understand me (Mr. La Beaume concludes) to imply that all precedent should be thrown to the winds. That would be like attempting to invent a new language. Rather let us sift the languages which we have inherited of such phrases and *motifs* as have outlived their usefulness and infuse into them such new terms as new conditions demand for their expression.



## THE WAR AND ITS BEARING ON PROFESSIONAL QUESTIONS.\*

BY E. C. P. MONSON, F.R.I.B.A., F.S.I.

REFERRING to the effects of the war, Mr. Monson observed that the building industry, with which the architectural profession is so closely allied, is one of the first to feel the pinch. The state of the money market, the increase in prices, the difficulty of obtaining material, and many other questions arising, naturally affect the building owner, and through him the architect and the contractor, and it can only be by the most careful thought and nursing that contracts now running can be brought to a successful issue. Unfortunately the prices at which jobs have recently been tendered for, have been so "cut" that any little unforeseen extra, to say nothing of large ones which naturally make the matter worse, must rapidly eat up the profits and tend to turn what might have been a margin on the right side into a bad loss. Any loss in this direction must naturally fall upon the builder and be a matter of most serious consideration to him, and often cause him some uneasiness.

*Modification of Contracts.*

Personally, Mr. Monson had had no trouble with contracts which were in hand when the war started, and builders were doing their best to get on with them—and he did not anticipate any extras; but he thought it only fair, if the job was genuinely proceeded with, that an extension of time should be allowed to the contractor, and that the penalty clauses should not be too strictly adhered to, because of the great difficulty which is being experienced in obtaining some kinds of materials. In the case of one large contract for which the tender was accepted before the war, but which the contractor would not proceed with owing to the causes mentioned above, the matter was settled and the contract signed upon the speaker's clients agreeing to pay an additional sum to cover the extra cost of materials attributable to the war used upon the work, over and above the prices prevailing at the date of the tender. Such extra sum in total is not to exceed five per cent. of the total cost of the job, and is to be the subject matter of a separate certificate at the completion of the contract, upon ocular proof being demonstrated to the architect that the extra prices have been actually disbursed. In small jobs he had not found that prices had been so materially affected as to make the carrying out of the work impossible or unremunerative. In many cases, when making out the preliminary estimates of the cost of the works to submit to one's client, sufficient notice has not been taken of the increasing stringency of Building Acts and bye-laws, and of the enormous advances in the price of labour and the cost of material, which, taken with the rise of insurance premiums for employers' liability, unemployment, health, and such-like burdens—all, however, very useful and necessary in their way—have, in the last twenty years or so, raised the price of building work some forty per cent., and even in the last few years by as much as fifteen per cent. to twenty per cent. Consequently the client has been given a false impression of what he would be called upon to pay, and has been dissatisfied when the tenders arrived. The speaker thought that in a few months' time, when timber ports are fully open

again, and either the old or new markets are available for the purchase of materials which have inordinately increased the price, no difficulty would be experienced in building works, for already the cost of some materials which rapidly went up has dropped considerably. Should such optimism not be realised, then it will surely be time for H.M. Government to step in and fix a maximum price for the respective materials (as has been done with success in the case of food), so as to prevent grasping merchants and importers from making an inordinate profit and crippling the industry of the country, thereby causing serious unemployment, to the detriment of the community at large.

*Government and Housing Schemes.*

The Chancellor of the Exchequer very generously promised a sum of four million pounds to be spent at once in housing schemes. This could now be readily applied, and would be an enormous help not only to the architects, who by the bye would only receive a very small part of it, but also to the workers in the building and allied trades. Moreover, it would supply that much-needed provision of housing which is so abundantly required and which is so anxiously being begged for in all parts of the land. Apparently the promised sum has not yet been earmarked or spent, and the sooner a start is made with it the better. Unfortunately the rate of interest charged by the Public Works Loan Commissioners has been raised from three and a half to four per cent., which of course will make a great difference in the preparation of housing schemes, and in some cases may cause the houses either to be let at rents greater than the people can afford to pay so as to show an adequate return on the nett outlay, or else the places must be let at an uneconomic rent and then the ratepayers at large must make up the deficiency, which is not a proper course to pursue. At the Society's last annual dinner, Mr. Herbert Samuel, the President of the Local Government Board, promised he would help architects and the building trade, and now is the time when it can be done with the greatest effect and most advantage to all concerned.

*Contractors' Responsibility in Time of War.*

A serious question is just being borne in upon contractors as to what is their responsibility in time of war should the buildings they are in charge of be damaged or destroyed by an enemy. The Society's Honorary Solicitor took the view that in the event of a building, or addition to a building, in course of construction, being damaged by the King's enemies, where the contract provides for a fixed sum to be paid upon completion, the loss would fall upon the contractor, and not upon the employer, in the absence of express provision to the contrary. In the event, however, of the contract providing for periodical payments against works performed, the contractors' claim for payment against works performed at the time of the loss would remain valid, and the loss to that extent would fall on the employer. It appears, therefore, that the contractor and the employer must either take out a policy at Lloyd's or in an insurance office covering his risk, or else trust to Providence. Personally the speaker thought this latter would be suffi-

cient cover, because he had faith in the Navy. Of course, there is always a chance of bombs from aircraft, but this contingency is obviously very remote.

*Suggested Round-Table Conference.*

Can architectural or other professional societies do anything to encourage the building industry? Could a representative round table conference be called, with all connected with the industry and many branches—manufacturers, fitters, contractors, building owners, architects, surveyors, engineers, Government departments, and representatives of allied trades connected therewith? This is a matter well worthy of our consideration, and the speaker expressed his intention of putting it down as soon as possible upon one of the Society's agendas for discussion so as to obtain the views of the Council thereon before doing anything definite.

*Architects' War Committee.*

We have at least to thank the war for putting an end, for the time being at least, to all questions of architecture, politics, and for giving us the unique spectacle of representatives of all sections of the profession working together for the common good. The Architects' War Committee has cemented all factions, if so they may be called—the Institute, the Society, the Architectural Association, and the Architects' Benevolent—and here an excellent work is being done. The Society started the Employment Fund by the grant of the sum of one hundred guineas, and the work of administering the money is done by the Professional Employment Committee, which meets once a week at 28, Bedford Square, the Society's headquarters. The Society is represented by several members on the War Committee, and on all the sub-committees, and is taking a very active part in the work.

*Stricter Economy.*

One result of the war would be the speaker thought, the impressing upon all concerned the necessity of the most strict economy and reorganisation of methods of building, as well as the standardisation of materials used, though not necessarily so as to make every street of houses appear as if they have been built from a bag of bricks or even cast in the same mould. The building depression consequent on the war could only be dispelled by the close working together of all concerned in the rearrangement of methods in the factory and workshops, and the strictest economy of architects and quantity surveyors, the latter in particular, in specifying the various articles and the materials in which they are to be employed. It is so easy to make a job come out at an excessive price by filling up the bill with quantities with innumerable labours and small works which could and should be priced in with the article itself. Only by such care being taken can the building owner be encouraged to proceed with his work by being made to feel that every consideration is being shown to him so as to give him the cheapest possible job compatible with good work.

The Society is conducting an enquiry into the discrepancies which exist between the cost of building in large foreign cities as compared with that in London; and, however, owing to the war is held up at the present time, but so soon as something

\* Extracts from Presidential Address delivered to the Society of Architects, 28, Bedford Square, W.C., November 12, 1914.



or submission to the members, it undoubtedly give some idea as to how to be done in the matter of organisation and reorganisation of our

lition to the stringency of the opposition and the need of profit there is the uncertainty as to what is proposed to be meted out by the Government under the Land Question, which has been a considerable slump in investing of money in this direction. It has been difficult to negotiate mortgages. Is it not possible for the Government, through the Land Department, to lend money on the security of well secured property up to one-third of its value at a reasonable interest to be paid back in a stated period? This would get over the difficulties now occasioned by the banks' diffidence on the subject, and moreover, show that the powers are willing to help all classes of community.

#### Registration.

With regard to Registration the President remarks that while at the present juncture it is not wanted to labour the point, it was necessary that it should be fully understood and kept well in the minds of everybody. The Royal Institute of British Architects have stated that for the present they are not proposing to proceed with the Charter Scheme, there will undoubtedly come a time when the fight will be waged with redoubled vigour. Steps have been taken by the Society to oppose the Charter Scheme in its present form, in his opinion, there is very little likelihood of its ever coming to fruition; for the present that no voluntary system of registration can be any good unless it be a very inadequate preliminary to compulsory registration.

There is there after all to prevent a registration of all Architectural Societies for the purpose of registration, control, and affecting the profession generally?

#### Architectural Education.

During the First Atelier in London the President remarked that at the time there is every chance for the offer of hospitality in architecture to students from France and Belgium. The Paris Ateliers are closed, and he stated that steps had been taken to draw attention to the notice of the Ecole des Beaux-Arts.

#### Competitions.

In the matter of competitions, the President has pleased to know that arrangements for co-operative action in dealing with unsatisfactory competitions had been made with the Royal Institute of British Architects which he was sure would be certainly very much better for the competitors and in the end better for the public. In regard to the announcement of the result of a competition, what he would like to suggest is, that instead of the competitors receiving the bald statement that their design has been refused, a system similar to that adopted at the Ecole des Beaux-Arts Atelier should be adopted. In cases where there are, say, three jury members, all agree upon the best design, then the others in order of merit, or at the first three or four. Then there is the public criticism of the designs submitted by one of the members of the jury, an award has been made, giving the reason for the selection. If members enter into any competition which is they must understand it is against

the code of ethics which has been adopted by architects, and they fully know, in the latter case, that they have only themselves to blame if they afterwards receive a disciplinary communication from the secretary, which may even involve them in expulsion from the society.

#### New Form of Building Contract.

The Society is well forward with the preparation of a new form of building contract, all others now in use being somewhat antiquated and out of date. The Council has given very much time and thought to the preparation of this document. It is being settled by an eminent counsel so as to embody all the latest cases which have arisen, and will, the President hoped, before being issued, receive the benediction of the master builders, and therefore be accepted without demur. A full-dress debate on this form of contract is to take place at the society's premises on December 10 next, and should prove very interesting.

#### Architects' War Service and Membership Subscriptions.

The President suggested to all architectural bodies, if they have not already done so, that all annual subscriptions from those members who are on war service be waived for the duration of the war, and that their names be retained on the Register as full members of the respective bodies. This is the least we can do at the present time in recognising their gallant conduct in taking up arms, not only in defence of their country but in defence of all that stands for honour and freedom.

In conclusion, the President expressed a hope that all architects would strongly aim at using only the products of our own country and colonies, and if what they want is not obtainable there, which seems hardly probable, then that they should give our Allies a chance, but that on no account should an alien enemy secure an order direct or otherwise, for it is only by patriotism of this kind strictly enforced and carried out that we can bring home to the nations who have forced us into this bloody war the fact that we are and can be quite independent of their "Kultur" and their productions.

[For Editorial comment, see pp. 306, 307.]

### RELIEF FOR PROFESSIONAL CLASSES.

An influential council, on which all the professional societies are represented—the R.I.B.A., the Society of Architects, the A.A., and the Surveyors' Institution among them—has been formed to deal with cases of distress among members of the professional classes, arising out of the war. The intention is to assist by advice and indirect help rather than by donations of money, and to this end six separate committees have been formed, whose work will be to negotiate with educational authorities, and make arrangements for the continuance of children's education, to arrange for training for those professions where openings are known to exist either at home or in the Dominions, to arrange for temporary employment, etc. This is a work which deserves whole-hearted support, and we would draw special attention to it. Subscriptions towards the fund that is being raised should be sent to The Professional Classes War Relief Council, Kingsway House, Kingsway, London, W.C.

## ENQUIRIES ANSWERED.

#### Barrel Roof for Norman Church.

INCOGNITO writes: "Would a barrel vaulted roof be most suitable for a Norman church? What would be the simplest construction of such for a span of about 36 ft.?"

—A barrel vault or a groined vault would be suitable for a Norman church, but neither construction can be considered independently of the whole design, which they absolutely condition. If an exposed timber roof is meant, the few Norman roofs which remain are of the simplest type; nothing approaching a segmental barrel ceiling is known. Probably a flat ceiling with canted sides, as at Peterborough, or a trussed rafter roof of seven cants, either ceiled as at Ely or open to view, would be most suitable and simple to construct. Professor Freeman wrote, in discussing the nave ceiling at Southwell, "A ceiling either perfectly flat, as at St. Albans and the transept of Peterborough; or slightly coved (i.e., canted), as in the nave of that cathedral, was the normal covering of the wider spaces of our great Norman churches." Illustrations of trussed rafter roofs of five and seven cants appear in Brandon's "Analysis" and "Open Timber Roofs." Thick walls and bulky timbering are essential to secure an approximation to Norman design, which is about the least successfully imitated of any historic style.

G.

#### Points in Partnership Agreements.

S. writes: "I contemplate purchasing a share in an architect's business in a country town which has been established about fourteen years, the clientèle comprising well-to-do tradesmen. The income is not guaranteed. How many years' purchase do you consider reasonable? Is it advisable to proceed in the present circumstances? Kindly enumerate the chief points to be borne in mind in such a case."

—Querist does not make it clear whether he intends entering into a working partnership or putting capital into an established business in return for a share of the profits. With the latter arrangement he may be advised to have nothing to do, but assuming that his intention is a working partnership so much depends on the relative ability (both in procuring commissions and carrying them out) of the partners that further assumptions have to be made preventing an answer save in general terms. (1) The capital value of an ordinary architect's business (or that of any "general practitioner" professional man) is, in my opinion at the most three years' purchase of the net earnings. (2) There can be no doubt that the present circumstances will render most architects' businesses unremunerative for some time to come, probably for at least a year after the declaration of peace, whatever the event. (3) A partnership relationship is so intimate that in my opinion its success is hopeless, failing suitability of temperament in the partners, and no amount of legal machinery will atone for this. The most (almost the only) really successful partnerships are those between persons whose professional careers have been so far run together as to enable each to judge the other's character and abilities. Querist's solicitor will no doubt protect his interests so far as it is possible to do so by deed, and the agreement should provide for no liabilities (such as for actionable negligence) incurred previous to date of deed being shared. A clause will pro-



bably be drawn in the interests of the senior providing against the junior (in the event of dissolution) setting up in opposition within a specified radius. A similar clause should also prevent the senior following a like course after "retirement."

G.

## SPECIAL LEGAL REPORTS.

### Plymouth Contractors' Appeal.

*Pethick Bros. v. the Governors of the Seale Hayne College.*

November 9. King's Bench Division. Before Justices Horridge and Rowlatt.

This was an application by Pethick Brothers that an award should be set aside or remitted to the arbitrator, in order that he might state it in the form of a special case raising questions of law for the opinion of the Court.

Mr. Roche, K.C., and Mr. Szlumper appeared for plaintiffs, and Mr. Hudson, K.C., and Mr. Roche for the defendants.

Mr. Szlumper said the arbitration arose out of a contract entered into on July 30, 1912, between Pethick Brothers, a firm of public works contractors, and the trustees of the college, for the construction of college buildings at Newton Abbot, Devon. The works were to be completed by August 1, 1913, but disputes arose and the works were not completed by August 21, when defendants served plaintiffs with notice to determine the contract. No extension of time was granted, and towards the end of October the works were actually taken out of the plaintiffs' hands, and defendants instructed other contractors to complete them. The defendants said the plaintiffs had not proceeded with the work with due diligence. Plaintiffs replied that the defendants had failed to hand to their possession the land or site necessary for the construction of the buildings as provided by the contract, that defendants had failed within a reasonable time to provide plaintiffs with proper and workable plans, that defendants had failed to give the proper and necessary directions, that defendants had caused delay by unreasonable interference, and that upon the true construction of the contract defendants had acted illegally in excluding plaintiffs from the works. Mr. J. H. Blizzard acted as arbitrator.

Mr. Roche, K.C., argued that the award was bad on the face of it, because the award had been given on a certain point on May 15, whereas the arbitration was entered upon on January 27. The arbitrator had no power to make an award after three months had elapsed. There were legal points in the case, and therefore the case should go back to the arbitrator.

Mr. Hudson, arguing the case for the respondents, said the arbitrator had held that the employers were justified and were entitled to take the contract out of the hands of appellants, and to proceed to complete it by another contractor. He contended that he was quite justified in doing that, and no grounds had been submitted to the Court to show that the arbitrator had done anything but what he was quite entitled to do. The arbitrator had been specially required to give the award he did on one part of the case, and all that he had to do now was to deal with the figures.

Mr. Justice Horridge, in giving judgment, said the motion was one by contractors to set aside an award on the ground that the arbitrator, Mr. Blizzard, architect and surveyor, Southampton, had omitted to state the award in the form of a special case, though formally requested

by counsel to do so, and also on the ground that on the undisputed facts the decision was erroneous. The last allegation was no ground at all for an appeal. As to the other point it appeared that the appellants on the sixth day of the arbitration put in a document asking the arbitrator to state his award in the form of a special case if he was against the appellants. Later on the arbitrator wrote plainly that he had decided he ought not to give his award in the form of a special case and said the parties could have fourteen days to decide if they would appeal. It was impossible under the circumstances to interfere with the award, and the motion must be dismissed with costs.

Mr. Justice Rowlatt agreed.

### Alleged Breach of the London Building Act.

*Brown v. George Trollope and Colls and Sons, Ltd.*

October 30. Chancery Division. Before Mr. Justice Warrington.

When this matter was mentioned it was announced that the parties had arrived at terms whereby all proceedings were stayed.

Plaintiff, the owner of property in Abchurch Lane, complained of a breach of the London Building Act, section 93, whereby his property was endangered. (See our issue of October 14 last, p. 254.)

## TRADE AND CRAFT.

### "Trus-Con Waterproofing Paste, Concentrated."

The function of an integral waterproofing has been stated as "to fill out the voids and interstices in a Portland cement concrete or mortar with a colloidal substance which will provide a density that will be impermeable." The characteristic capillary structure of concrete arises from the fact that a large percentage of water is used in tempering and placing the concrete. This water is naturally incompressible, and occupies a definite volume, which, when the water evaporates, is left unoccupied, and is represented by fine capillary veins throughout the entire mass. In the natural process of hardening in Portland cement, there is a partial development of colloid in the cement itself, which affords a degree of waterproofness, and it is accordingly held that the true purpose of an effective waterproofing product is to provide a sufficient amount of colloid to fill thoroughly all the voids formed by the interlacing of the crystals. The manufacturers of "Trus-Con Waterproofing Paste, Concentrated" (Trus-Con Laboratories, Detroit, Michigan; London offices, Central House, Kingsway) state that the object in employing this material is to fill up these voids in the most effective way, and at the lowest cost compatible with efficiency.

The word "concentrated" is used with this product because, according to the vendors, it contains absolutely no inert or inactive filler, every single particle of the paste being capable of colloidal development. By the term "colloid" is implied a substance of a gelatinous or jelly form that can flow in around the crystals of cement in the interstices and voids of the concrete, so as to fill them and overcome the naturally absorbent nature of the concrete due to its capillary construction. After very extensive scientific researches and experiments, the inventors claim to have produced, in "Trus-Con Waterproofing Paste, Concentrated," a compound which will ensure a perfectly

waterproofed mass without in any way impairing the strength or properties of concrete; and they lay great stress on the advantages of concentrated colloids.

We have before us an interesting catalogue entitled "Science and Practice Combined in Waterproofing," which treats and describes numerous waterproofing problems which, as numerous testimonials show, have been successfully solved by the use of this product.

### Asbestos-Cement Building Materials.

Among the lighter and more modern materials of construction recommended by Government departments, such as the Local Government Board and the Ministry of Education, with especial reference to hospitals, sanatoria, and schools, the form of asbestos-cement is generally implied. Architects and builders are therefore examine with more than casual interest the illustrated booklet which has been issued by The Asbestos Manufacturing Company, Ltd., Caxton House, Whitehall, which gives full particulars of their asbestos-cement corrugated sheet, asbestos flat sheets, and asbestos-cement slates.

These materials are mainly composed of a combination of Portland cement and asbestos fibre, and are manufactured under very great hydraulic pressure the material being therefore a concrete in which asbestos plays the part of an aggregate, and the materials naturally possess the peculiar property of concrete of growing stronger with age and exposure to the atmosphere, and of consequently requiring no painting or other preservative treatment to protect them from the elements. Also they are fire-resisting, are non-conductors of temperature, and have a high capacity of resistance to acid fumes. They can be easily cut and sawn to any required shape or size, or drilled with a carpenter's brace and bit.

The asbestos-cement corrugated sheets called "Corrament," are especially suitable for covering roofs, sides, and ends of all sorts of structures which may be roughly designated as of the warehousing class, although they are of course equally applicable to station platform roofs, locomotive running sheds, breweries, foundries, bungalows, sports pavilions, sanatoria, etc.

The booklet includes detailed instructions for the use of the material in many and various services; and the diagrams included among the illustrations are particularly useful as showing in detail the best methods of fixing the sheets to slates; while several pages of tables of matter afford very useful data for the determination of weight, area, and cost.

### "The Charm of Lynn."

Architects will appreciate the beautiful form which is being given to a new series of "Pudlo" folders. A brief historical account of the place dealt with is illustrated with fine half-tone engravings of noteworthy buildings or details. The folder designated "Charm of Lynn" shows the main entrance to Thoresby College, a fine early sixteenth-century red-brick building, and the gateway to Sir Thomas Clifton's house. King's Lynn is described as "The Town of Bygone Merchant Princes," whose prosperity led them to lavish money on the building of grand churches, monasteries, guildhalls, and residences. In the innermost part of the folder it is stated that the first Pudloed roof was laid in 1908 at Sunnyside for the corporation on a row of workmen's cottages; that the Society for the



of Ancient Buildings covered several Pudloed roofs at Hard-Hall; and that the material has successfully used at Ruskin College, the cottage hospital at Buxton, a at Brighton; many schools; the for Leicester County Council; Chadderton Town Hall, Old on the Carnegie Library at cum-Hardy; bonded stores for Corporation; and in very many owned roofs, as well as for pro-100 ft. long by 16 ft. wide, for on Town Council.

#### *Ironite" Waterproofing.*

is informed that the "Ironite" waterproofing process for bricks, concrete, etc., is being used on the jobs: Mount Vernon Hospital, and, Mr. J. Saxon Snell, architect, reservoir for the Metropolitan Board, Shooter's Hill, Eltham; British West Africa, Ltd., Water Liverpool (Messrs. Briggs, Wolfe, and Thornely, architects; Waterworks Company, Lendal York; Stockport Corporation works; Great Grimsby Waterworks; Marylebone Cricket Club, heating chamber and subway; Western Railway, cattle pens, Station, Birmingham; Union Manchester, All Saints' branch, Sect. Manchester.

## OBITUARY.

#### *Stockdale Harrison, Sen.*

much regret to record the death of Stockdale Harrison, F.R.I.B.A., of in his sixty-ninth year. Mr. was articled to the late Mr. James e had been practising as an architect for more than forty years. In conjunction with his sons he designed Montfort Hall, the Westcotes Free of the Vestry Street Baths, the at South Wigston, and the church Stephen's, North Evington. But building with which his name is ad is the Usher Hall at Edinburgh carried out in conjunction with Ward H. Thomson. Mr. Harrison of retiring disposition, and took no public life, but he was at one time of the Leicester Society of Architects. He was greatly respected by the the members of the profession, genial and kindly nature endeared a large circle of friends.

#### *Mr. J. J. Webster.*

death has taken place, in London, John J. Webster, M.Inst.C.E., well as a designer and builder of notable and piers in various parts of the He was born in 1845 at War-Mr. Webster designed and con-promenade piers at Dover, Ban-head, Llandudno, Menai Bridge, it, and other places. Amongst es are those at Cambridge, Bed- (20), Guildford, Northwich, and ton. His other work included nstruction and widening of Con-pension Bridge, the Portsmouth Bridge, Littlehampton Swing and Cemaes Bridge, near Aber- He also constructed the Widnes ncorn Transporter Bridge, and the gigantic wheel at Earl's and the Stadium in which the sports were held.

## SOCIETIES AND INSTITUTIONS.

#### *Architectural Association of Ireland.*

The opening meeting of the session of the Architectural Association of Ireland was held on November 3, Mr. Harry Alberry, president, occupying the chair. A presidential badge of office was presented to the Association by Professor W. A. Scott, Professor of Architecture in the National University. The badge was designed and enamelled by Mr. Oswald Reeves. The president, in the course of his address, said the last census figures showed that there were 405 members of the architectural profession and 1,229 civil engineers in Ireland. It was very encouraging, he added, to see the interest taken by their members in social problems, and the awakening of interest in the subject of town-planning was of good omen for the future.

#### *Garden Cities and Town Planning.*

The following is the programme of lectures arranged by the Town Planning Institute for the current session. Lectures were delivered on October 23 by Mr. John A. Brodie, M.Inst.C.E., on "Wide Roads for Cities," and on November 13 by Mr. Percy T. Runton, A.R.I.B.A., on "The Industrial Village," and the remainder of the programme is as follows:

December 4.—Mr. E. R. Abbott and Mr. F. M. Elgood, F.R.I.B.A., on "The Ruislip-Northwood Scheme."

January 29, 1915.—Professor S. D. Adshead, F.R.I.B.A., on "The Urban Land Problem as it Affects Town Planning."

February 19.—Mr. George L. Pepler, F.S.I., on "Economics of Town Planning in Relation to Land Development."

March 12.—Mr. Thomas H. Mawson, Hon. A.R.I.B.A., on "Some of the Larger Problems of Town Planning."

April 16.—Mr. W. T. Lancashire, M.Inst.C.E., and Mr. H. V. Lancaster, F.R.I.B.A., on "Replanning and Re-development in Existing Centres."

#### *Royal Society of Arts.*

The Society's session commences this evening, November 18, when an address will be delivered by Sir Thomas Holdich, Chairman of the Council. All the usual arrangements have been made for the Society's meetings. On December 9 Mr. W. A. Young will deliver a lecture on "Metal-work in the Eighteenth Century."

## COMPETITIONS.

#### *School, Rosyth.*

It has been agreed by Dunfermline School Board that the competition for a proposed new school for 1,000 children at Rosyth shall be restricted to architects in the town and parish of Dunfermline, the chairman dissenting.

#### LIST OF COMPETITIONS OPEN.

FEBRUARY 8, 1915. — WORKMEN'S DWELLINGS, LIVERPOOL.—The Corporation of Liverpool invite designs for workmen's dwellings to accommodate about 500 persons, on the Rathbone Street area. Premiums, £100, £50, and £25. Mr. Henry Hartley, F.R.I.B.A., has been appointed assessor. Particulars (£1 is. returnable), from Edward R. Pickmere, Town Clerk, Municipal Offices, Liverpool. Designs to be delivered on February 8, 1915.

NO DATE. — FEDERAL PARLIAMENT HOUSES, CANBERRA.—In consequence of the war, this competition has been indefinitely postponed.

## LIGHT AND THE ECONOMIC PRODUCTION OF ILLUMINATION.

In a lecture delivered before the Devon and Exeter Architectural Society at Plymouth, Mr. V. H. Mackinney, chief engineer, Holophane, Ltd., observing that medical men insist on the health-giving and curative powers of the sun and condemn buildings where there is not proper access of daylight, referred to the Italian proverb, "Where the sun does not enter the doctor comes."

It is somewhat singular, he said, seeing that so much care is devoted to the natural lighting of buildings, that the provision of artificial light does not receive more attention. Not infrequently when buildings are erected the artificial lighting is left to the very last, with the amount expended on it quite inadequate to its importance.

It is a matter of importance that the artificial light which we now use so freely should be properly arranged. Bad lighting affects the health in many ways. Not only does the general health of people habitually working amid gloomy conditions suffer, but the mere fact of their trying to work under such difficulties imposes a strain.

Bad lighting, by adding to the strain of labour, causes fatigue and general deterioration in health, even when it does not directly affect the eyes. So well is this realised that the Home Office in this country has appointed a Departmental Committee to study this subject, and exhaustive enquiries into the illumination of many kinds of factories are now being made.

Good lighting is naturally of special consequence to architects, and it was the lecturer's desire to bring to their notice the work accomplished during the past few years by lighting engineers and others in the field of scientific illumination, and to dispel the view which seems to exist among architects that it is usually not possible to satisfy their demands for lighting units which harmonise with the decoration and character of the building, while at the same time conforming to scientific design and economy.

Good illumination is a safeguard against accidents. In factories it prevents spoilt work, and the operators put forth their maximum output, and it is consequently an economical necessity. A badly lighted office is never well kept. Things get out of place, and mistakes are made, with a consequent waste of time. In a bank, where absolute unflinching accuracy is essential, good lighting cannot be dispensed with. A clerk working in insufficient light is apt to make mistakes, and no one can foresee how serious the consequence of such a slip may be. A badly lighted restaurant fails to attract custom, a badly lighted shop is a constant annoyance both to the staff and the customer, shop window-lighting has become a fine art, and up-to-date merchants fully recognise the value of well-lighted windows as an advertisement. People naturally crowd to the windows where the illumination is exceptionally good. Not long ago some experiments on this point were carried out in a well-known store. The number of people passing who looked into a certain indifferently lighted window was noted. It was found that the window attracted the notice of about 12 per cent. of the passers-by. Then the services of an expert were called in, and the illumination was re-designed in a thoroughly up-to-date decorative manner, when a count showed that



no less than 72 per cent. of passers-by now looked in.

The value of good lighting is evident, but it is not such an easy matter to say exactly of what good lighting consists. There are, it is true, certain fundamental requirements that must be met. The light should be sufficient. In an office or workshop, for example, we must provide enough light on the work to enable the workman to do his task in comfort, or the clerk to read and write with perfect ease. We must also provide sufficient general illumination in the room for all surrounding details to be clearly visible. But only long experience can show exactly how much light is needed for different classes of work, and only the skill of the trained lighting expert can secure that in any installation this correct amount will be provided. The illumination should be just right. Too little would be a hindrance to the worker and, therefore, uneconomical; too much would be wasted.

Another fundamental rule is that the light should be directed where it is needed. This implies two things—that the lights are arranged in the correct positions, and that the lamps are provided with the correct shades or reflectors, screening the light from the eyes of workers and directing the rays just where they are required. Proper shading, in fact, is one of the first requisites in successful illumination. It is not enough merely to provide a bright light. An unshaded source, throwing the light right into the eyes of the worker instead of on the work he is doing is a constant source of annoyance; it may be worse than no light at all. Moreover, it is extremely injurious to the eyesight.

There are, of course, many special points to be considered. The light should come from the right direction, the shadows should be just right, neither too soft nor too hard, the glassware or metal used with the lamps should be suited to the surroundings. But all these requirements can be met by the trained illuminating engineer, whose profession, though a comparatively new one, had already won recognition from the architect.

In two of his many lantern slides the lecturer illustrated the distribution of light from one of the new half-watt lamps and the manner in which the distribution can be altered by means of an accurately-designed reflector. In two others he showed diagrammatically the properties of various materials. Accurately designed prisms offer a means of controlling light to the greatest extent and redirecting it more efficiently than any other known material. The photometric tests made from actual samples of glassware of the various kinds showed the superior efficiency and redirecting power of Holophane scientifically designed prismatic glassware. Typical examples of fittings equipped with ordinary shades were contrasted with those bearing shades harmonising with the fittings and improving illumination results to a very material degree. The Holophane Company, the lecturer mentioned, has recently placed on the market a very large series of scientifically designed glassware for use in municipal and other large buildings and also for domestic lighting.

In conclusion the lecturer showed a number of lantern slides illustrating some recent installations, and gave data showing the illumination results in various places and the amount of energy consumption employed to achieve the definite results specifically in the glass as being requisite in each case.

## CAMP ACCOMMODATION.

Lord Kitchener's orders are "No tents after November 27." Nearly all the huts on Salisbury Plain, at Aldershot, and at other big centres are now completed. At Aldershot the first batch of men to occupy these new homes, are the Royal Army Medical Corps, and their lines in the camp are called Harley Street. The huts are built of wood, lined with asbestos, and have an outer covering of specially prepared tarred cloth. They are warmed by large stoves and provided with electric light.

The building of soldiers' huts, says the "Daily Citizen," has provided employment for about 150 members of the United Builders' Labourers' Union. The men, who are comfortably housed and fed, work at Bovington Camp, Dorset, Shoreham, Newhaven, and Wendover, and receive London rates of pay.

Messrs. Parks and Son, builders, of Grantham, have just executed for the War Office 2,500 camp floors, those required for troops, measuring 12 ft. 6 in. in diameter, and those for stores 50 ft. by 20 ft. In addition, several thousand field service beds have been made, and the whole despatched to York. The order was required to be executed in five weeks, but the firm was equal to the occasion. The contract swallowed up over 200 tons of timber, 400 gross of screws, five tons nails, and one ton of hoop iron.

## NEWS ITEMS.

### Osram Lamps for the G.P.O.

The General Electric Co., Ltd., has again secured a G.P.O. six months' contract for the supply of Osram lamps.

### School Ventilation.

The Claggan School, Argyllshire, is being supplied with Shorland's patent Manchester grates, by Messrs. E. H. Shorland and Brother, Ltd., of Failsworth, Manchester.

### Structural Engineering at the L.C.C. School of Building, Brixton.

The Thursday evening class affords training in the practical designing of reinforced concrete and steelwork. The lecturer is Mr. R. Graham Keevill, A.M.I.M.E., M.C.I., of the Works Department, Admiralty, who is also the lecturer on reinforced concrete at the Northern Polytechnic.

### Aberdeen Memorial to King Edward VII.

Viscount Bryce has unveiled the Aberdeen memorial to King Edward VII. This is entirely of Aberdeenshire granite, the figure of his late Majesty, which is over 10 ft. high, having been cut from a solid block of finest grey Kemnay stone. Two bronze groups representing Peace and Unity are included in the memorial. The sculptor was Mr. Alfred Drury, R.A.

### Completing the Victoria Memorial.

The completion of the Victoria Memorial scheme by placing figures on the four pedestals flanking the steps leading to the base of the statue in front of Buckingham Palace was begun last week, when an enormous bronze group weighing eight tons was brought from the founder's and hoisted into position. It is the figure of a lion with Peace standing beside him. One hand rests on the lion's mane, and the other holds aloft a spray of laurels. Similar groups will be placed on the three

other pedestals, and there are two bases crowning the retaining wall, which will also have bronze groups.

### Prices of Building Materials.

The Committee of the Dublin Building Trades Employers' Association appointed to deal with the prices of building materials met on November 9. A 10 per cent. rise in the price of spruce was noted. Obscured and fluted sheet advanced 1d. per foot. A reduction of 1d. per ton for sheet lead was recorded. Joists, 2s. 6d. per ton, and galvanised 25s. per ton.

### The A.A. Collection of Lantern Slides.

By direction of the Council of the R.I.B.A. some 900 lantern slides, representing many years' accumulation of illustrations of papers read before the Institute, have been handed over as a gift to the Architectural Association. Previously the A.A. collection numbered upwards of 6,000 slides, all catalogued, classified, and available to its members and other people for hire at a small charge. The recent additions bring the number to 7,000, and the A.A. has agreed that the whole collection shall be available for loan to members of the R.I.B.A., who, on charge, on application to the Council.

### Lectures on Reinforced Concrete Design.

The attendance at lectures in the branches of technical education at various London colleges has been seriously affected by the war. All cannot serve the ranks, and to those who are compelled to remain at home the usual winter course of study is by no means palatable. We are therefore glad to note that the course of lectures in practical reinforced concrete design at the Westminster Technical Institute is able to continue. As in previous years, a feature of this course is the teaching of theoretical principles by actual experiments by the students upon large experimental beams and members. A 20-ton testing machine in use was designed and constructed by the institute staff. We gather from the syllabus that the course is an eminently practical one. Complete designs are worked out for floors, columns, retaining walls, arches, domes, water-tanks, etc., and visits to works in progress are arranged. The lecturer and instructor is Mr. Percival Waldram, F.S.I., M.C.I.

## FOR KING AND COUNTRY.

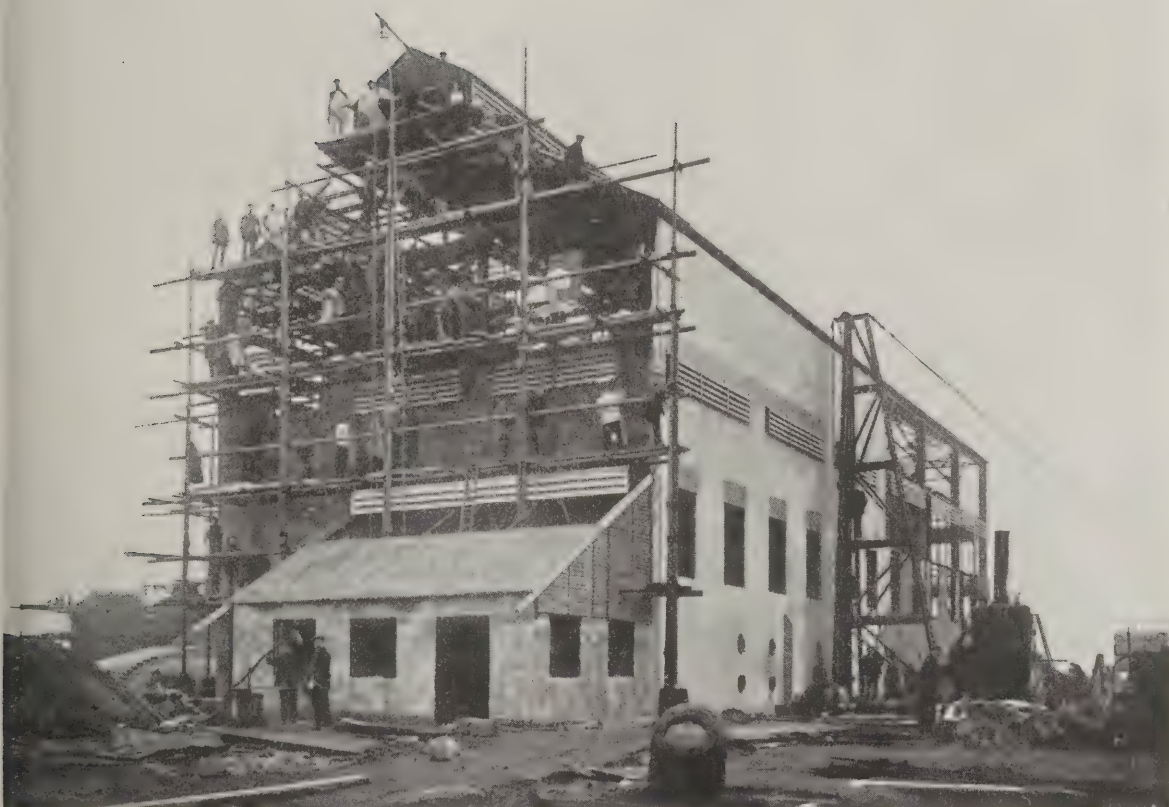
The following is a list of architectural students connected with the Leeds and West Yorkshire Architectural Society who are at present serving His Majesty's Forces:

Kirk, Albert E., 7th Battalion, West Yorkshire (Colonel).  
Kitson, Sydney D., Yorkshire Hussars (Lieut.).  
Crowe, J., 25th London Cyclist Battalion (Private).  
Winch, A., Leeds City Battalion (Private).  
Dawson, W. F., Leeds City Battalion (Corporal).  
Berry, A. S., Leeds City Battalion (Private).  
Kruckenberg, F. L., R.A.M.C.  
Palmer, R. L., Public Schools Battalion (Lieut.).  
Gibson, E. H., Royal Naval Volunteers.  
Elsworth, L. A., Honourable Artillery Company.  
Carby Hall, D. W. R. Divisional T. a. S. Army Service Corps (Captain).  
Carby Hall, R. L. W. R. Divisional T. a. S. Army Service Corps, Reserves, (2nd Lieut.).  
Bowman, D., Officers' Training Corps (senior on Army Service Corps).  
Bowman, H., Officers' Training Corps (senior on Army Service Corps).  
Bell, E. A., Yorkshire Hussars (Trooper).  
Wallis, C., Yorkshire Hussars (Trooper).  
Foster, L., Leeds City Battalion (Private).  
Beard, H., Leeds City Battalion (Private).  
Holroyd, F., R.A.M.C. (Private).  
Lennox, H., 7th West Yorks. (Private).  
Ledgard, A., Officers' Training Corps.



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## PROJECTED NEW WORKS.

*Public Offices, Wolstanton.*

The Wolstanton Urban District Council have submitted plans for new public offices at Wolstanton to the Local Government Board.

*Factory, Burry Port.*

It is announced that Messrs. Nobel contemplate erecting new works for the manufacture of gunpowder on the site of the old dynamite works at Burry Port.

*New Buildings, Reading.*

The Borough Extension Committee of the Reading Town Council have approved Mr. W. Galt Millar's scheme of elevations of new buildings in Bridge Street, Church Street, and Church Road, Caversham.

*Abattoirs, Liverpool.*

The Liverpool City Council have under consideration the construction of new abattoirs and the erection, at an estimated cost of £30,000, of a smallpox hospital on part of the Sparrow Hall estate, Fazakerley. Tenders are to be invited early.

*Factory, Crayford.*

It is stated that Messrs. Vickers, Ltd., gun manufacturers, propose building a factory at Crayford, Kent, for, among other things, the manufacture of sewing machines, with the purpose of ousting from this country the German makes which hitherto have had a market here.

*Library, Bournemouth.*

Bournemouth Town Council have approved plans for a new branch free library at Westbourne.

*Hospital, Ayr.*

The Ayr Town Council have submitted plans to the Local Government Board for a new fever block at the local hospital.

*New Offices, Worcester.*

The Worcestershire County Council have decided to build new offices to meet the requirements of the growing staff of the County and to have the officials in one building.

*Housing Scheme, Dublin.*

A new housing scheme for the Boyne Street area of Trinity Ward, Dublin, is under consideration of the Corporation Housing Committee. It is proposed to erect 42 three-roomed houses, the estimated cost of the scheme being £22,075.

*Cottages, Prestwich.*

The Prestwich District Council is to apply to the Local Government Board for sanction to borrow the sums necessary to purchase a site on the Clough estate upon which to erect eighteen workmen's cottages.

*Extensions, Shardlow.*

The Shardlow Guardians have received the architect's estimates for extensions and alterations to the workhouse. The estimated cost is £9,134. It was resolved to ask the Local Government Board to sanction a loan for that amount.

*New School, Pontrobert.*

At a meeting of the Montgomery Education Committee it was decided to acquire land for a new Council school at Pontrobert.

*Schools, Aberdeen.*

At a meeting of the Governors of Gordon's Technical College, Aberdeen, it was stated that plans for several new schools had been prepared and forwarded to the Education Department for final approval.

*Housing Scheme, Cheetham.*

Two municipal housing schemes have been the subject of a Local Government Board inquiry at Manchester. One related to the Temple estate scheme, Cheetham Hill, near Queen's Road, the estimated cost of which is £30,376, the other to Tebbutt Street, Rochdale, which is to cost £8,973.

*Kingston Bridge Reopened.*

Kingston Bridge, which has been widened by the County Councils of Middlesex and Surrey, has been opened to public traffic. The original bridge had a width of 25 ft. only. It has now been widened to 55 ft., and provides a carriageway 35 ft. wide, with a 10-ft. footway on each side. It will be remembered that the widening was a long and somewhat bitter controversy on the proposal which has now been carried out.

*A Builder's Estate.*

Mr. George Williams, of Stroud, London, N., builder and contractor, died on August 20th, left estate worth £25,760.

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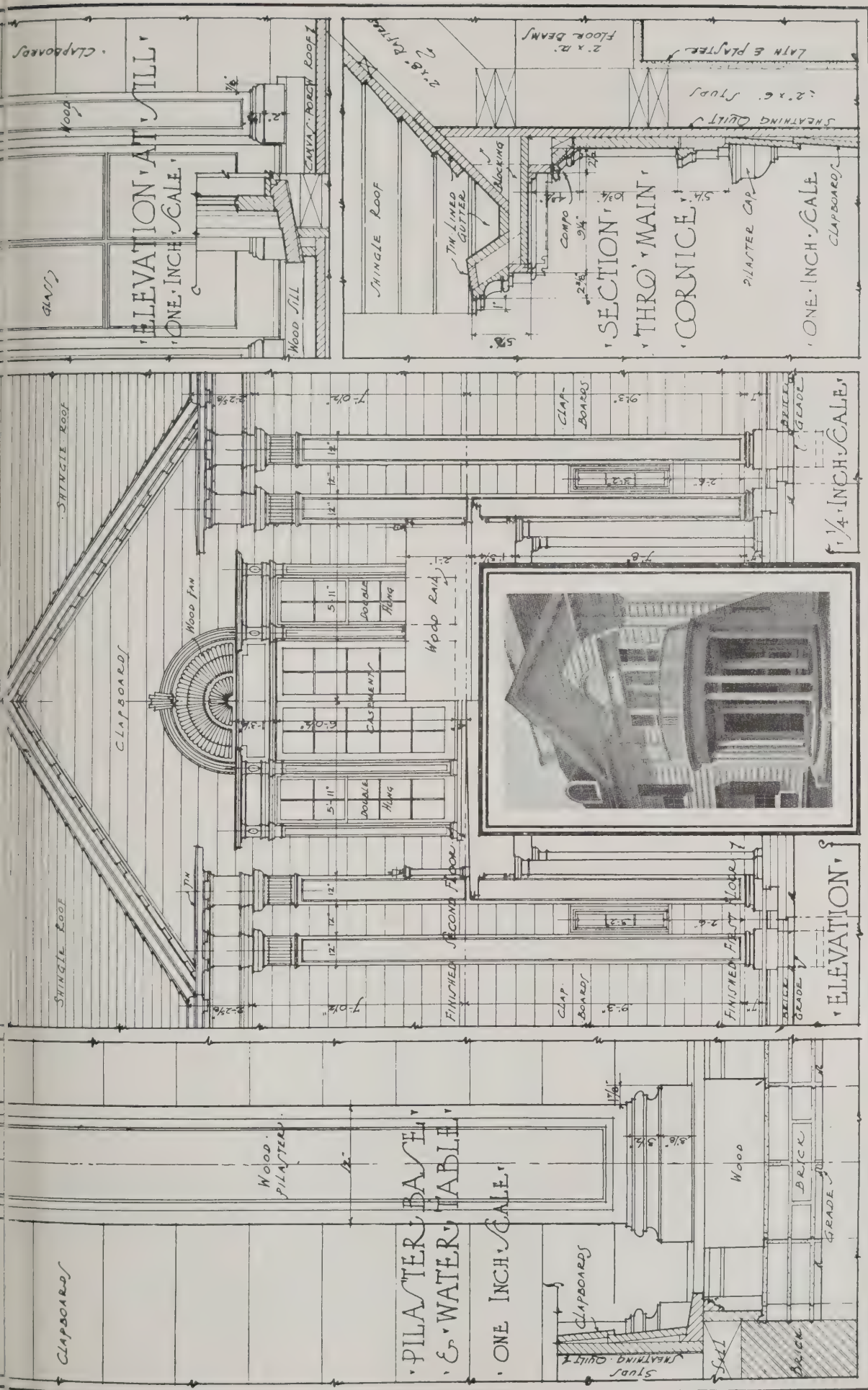


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WORKING DRAWINGS BY WELL-KNOWN ARCHITECTS. XLVI.—DETAIL OF ENTRANCE FRONT TO HOUSE AT LITCHFIELD, CONNECTICUT, U.S.A.

AYMAR EMBURY II., ARCHITECT. DRAWN BY WALTER MCQUADE.



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FRENCH EMPIRE FURNITURE. VI.—CHAIR IN THE GRAND TRIANON, VERSAILLES.



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MONUMENTAL ARCHITECTURE. XXIX.—BASE OF SCOTT MONUMENT, GEORGE SQUARE, GLASGOW.



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SMALL HOUSES OF THE LATE GEORGIAN PERIOD. XXXIV.—HOUSE AT ESHER, SURREY.



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STUDENTS' DRAWINGS. XXXV.—DESIGN FOR IMPROVEMENT SCHEME, LIVERPOOL.  
BY F. JENKINS.



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MODERN DOMESTIC ARCHITECTURE. XLV.—DRAWING-ROOM, RIPSLEY HOUSE, LIPHOOK, SURREY.

HAROLD FALKNER, ARCHITECT.



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*Photo: Bedford Lemere & Co.*

CURRENT ARCHITECTURE. XCII.—DETAIL OF MAIN STAIRCASE WALL, S/S "AQUITANIA."

MEWES AND DAVIS, ARCHITECTS.



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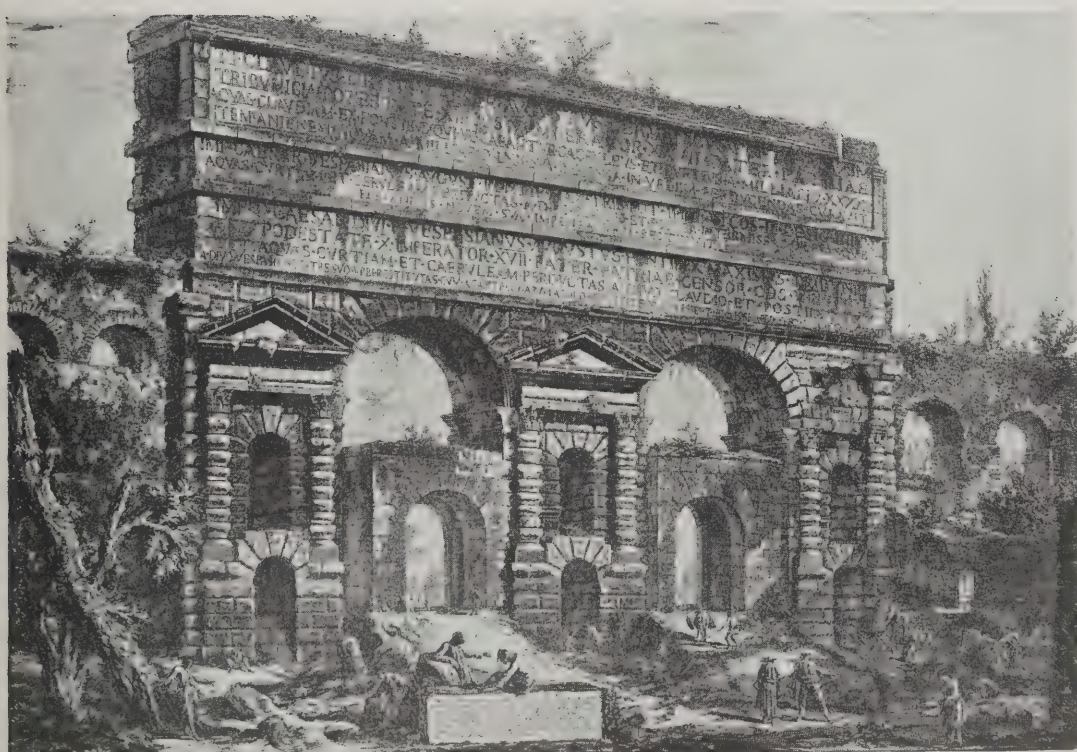


# THE ARCHITECTS' & BUILDERS' JOURNAL.

Wednesday, November 25, 1914.

Volume XL. No. 1038.

No. 112.



(From Piranesi.)



# THE ARCHITECTS' & BUILDERS' JOURNAL.

NOVEMBER 25, 1914.

TOTHILL STREET, WESTMINSTER.

VOLUME 40. No. 103.

## EDITORIAL.

TO say anything new about the Surrey side of the Thames is well-nigh impossible, the subject having been treated exhaustively by a long succession of reformers and reactionaries. That, in his paper read before the R.I.B.A., Mr. Paul Waterhouse succeeded in imparting fresh interest to so well-worn a theme is therefore rather a triumph of style over matter. He has, of course, a scheme of his own, which, however, has for its chief novelty the modesty with which it is put forward. He is chiefly concerned with the economic advantages of connecting existing roads with the river-crossings, and in particular he advocates the formation of a "comparatively direct" road on the Surrey side, between Westminster Bridge and Southwark Bridge, connecting Westminster and the City.

Soon or late, such a road must certainly be formed; for on the southern banks the existing ways between east and west are as devious and as narrow as they were in the days when they led, more or less tortuously, to the Globe Theatre of Shakespeare and Burbage, or to the playhouses and bear-gardens of money-grubbing old Henslowe. Possibly by the time the members of the London County Council find themselves in occupation of their new County Hall they will simultaneously discover the necessity for such roads as Mr. Waterhouse and others suggest, and the bad old traditions of the Clink and other squalid horrors of Bankside will vanish into thin air; or at least—to borrow an adverb from Mr. Waterhouse—into comparatively thin air. Anything superlative is to some people fascinating, and therefore the superlative ugliness of Bankside and its hinterland is not without worshippers who affect to be able to invest it with poetry and "picturesqueness."

Failing this glozing and glamorous temperament, however, one sympathises with Mr. Waterhouse's colloquial estimate of some of the unpoetised actualities that they are "beastly," or "devilish," or that "by sheer force of architectural iniquity they radiate actual depression of spirit"—"swear at you as you pass," as someone has vividly put it. These extreme cases are perhaps valuable as enabling people to realise the power of buildings to depress or to edify, but we do not suggest their conservation on that account! We agree without hesitation that there is urgent need for running two or three new streets "clean through the district"—"clean" being doubly stressed. With regard to a suggestion that the mud-flats which at low tide are so obscene a spectacle on the Surrey side should be reclaimed, and an embankment be formed, this reform we have always regarded as merely a question of time and money; and we are optimistic enough to believe that its consummation will not be much delayed on account of the war—which,

indeed, may even hasten it, if Thames-side progress develops as enormously as it is expected to as a result of changed commercial conditions, and the rapidly expanding business of the Port of London.

One item that is so common in these Surrey schemes that it may be almost regarded as a constant factor has never appealed to us very strongly, on the æsthetic side. We refer to the removal of Charing Cross railway station to the other side of the water. Even so practical-minded a visionary as John Burns has nodded his Jovian head in approval, and certainly the abolition of the hideous girder bridge which feeds the station would be worth almost any sacrifice that the public could be brought to make. They have to be persuaded that this amenity is not a tramp across a bridge twice a day, or that, alternatively, the centres of business and of pleasure should be shifted to the southern side. If by chance the Theatre-land should be again found on Bankside instead of in Charing Cross and the regions about, three of the theatres should be named after the Globe, the Rose, and the Hope. To complete the Elizabethan series, the County Hall would soon be known as the Bear Garden, though we trust that its inmates may never do anything to justify the name, but popular sarcasm.

Mr. Waterhouse seems rather to favour moderate measures. He thinks that there is room for a position intermediate between the man who says "there be costly public buildings," and him who says "Let there be always mud and shot-towers." He is; but this halting between two opinions is a posture for the dreamer of schemes, but should be reserved for the persons who turn them to shape. He who has the good luck to see his schemes materialise is always pushed back to a distressing distance from his original point of view, which he should then choose strategically in the hope of being ultimately forced back no further than that same original position. So that Mr. Waterhouse's amiable perhaps practicable compromise of giving dignity to the wharf trade is impolitic, to say the least of it, its realisation (as modified by Jacks-in-office and ignorant essayists) would make us lament the mud and the shot-towers. But Mr. Waterhouse's paper is excellent reading.

A letter printed in another part of the present issue conveys an impression that some of the objections of ours on Austrian oak, in the *Journal* of October 28, p. 270, were on one point capable of misconstruction. We are glad of the opportunity to make the position clear. It will be remembered that we were dealing mainly with a specific instance



official demand for Austrian oak book-cases. As uppermost in the mind at the moment was the anxiety of the situation—a British Government agent accused of specifying the product of an enemy country! Surely here was one of life's little and a fit subject for comment! And it would be a little of its savour, even supposing—as may well happen to be the case—that the specification was prepared before the war broke out.

the excellence of the material itself there can be no question; and it was certainly very remote from any intention to suggest that the stocks purchased before the war should be promptly and completely boycotted. It did not seem possible that any interpretation could be put on what we said, and so-called patriotism could be pushed to such an extreme of absurdity as deliberately to visit the enemy on one's own countrymen; moreover, remarks were written in implicit confidence that architects would appreciate the full significance of the reminder that large stocks of Austrian oak are now held in this country by British merchants: *p. sat.* While ultimately it may become necessary to provide substitutes for Austrian oak, that necessity depends on the trend of events. In all probability we shall have to reckon with it sooner or later, and we are therefore justified in looking ahead. Meantime, architects will be glad of the fact that at present ample supplies of Austrian oak are available, and that, until the stocks held by British merchants are exhausted, this material may be specified without scruple. In circumstances where trust is now sufficiently clear, there is only more real patriotism in specifying than in specifying this material, or any other that is similarly affected by the fortunes of war.

the war is a wonderful solvent. It even seems to be capable of settling the long-winded Piccadilly site question. This is not the Piccadilly of yore, of which all the world (or at least an entire hemisphere) has become conscious through the casual reference to it in the far-flung song of "Tipperary." Manchester has also her Piccadilly, as well as her Pall Mall, Grosvenor Street, Chancery Lane, Adelphi Street, and Oxford Street, and it is the Manchester Piccadilly that has suffered from a "site question." Some would say that Manchester deserves that Nemesis for its part in destroying the fine infirmary which occupied the site that has been so long awaiting for architects to make up their beautiful minds whether to build on it a library and an art gallery, or whether they would not rather have an exchange.

or not, the infirmary could at least claim the interest that pertains to a building erected in instalments at different periods. Originally the infirmary built in 1755, an addition was made in 1792, in 1817 a wing was added, and in 1851 Jenny Lind, the famous singer, gave £2,500, the proceeds of two performances, towards the building of another wing. But in the course of fifty years or so the infirmary had become inadequate to the needs of the city, and a new one was built near the university. Having bought the site for four hundred thousand pounds, the corporation was a long time unable to decide what to do with it. In 1910 a library and an art gallery seemed to be the best use, and it was decided to invite designs in open competition. Professor Reginald Blomfield was the sole competitor, and, if memory serves us, about twenty designs were submitted. Professor Blomfield's design was made in September, 1911, and during the month the corporation suspended the project in favour of a scheme for purchasing the Manchester

Royal Exchange undertaking, and adapting its building as a free reference library, while the Piccadilly site was to be used for a Municipal Exchange.

When, therefore, it was announced that the winners in the final stage of the competition for the library and art gallery were Messrs. Crouch, Butler, and Savage, of Birmingham, one had to mingle congratulations on their splendid achievement with something that was rather like commiseration for the untoward turn of events, which robbed—perhaps only temporarily, as it now seems—their success of its due meed of honour and emolument. And now, through the influence of the war, it seems possible, even probable, that the library and art gallery may yet be built. At all events, the Royal Infirmary Old Site Committee are keenly alive to the desirability of exploiting this costly site, in order to make immediate provision against unemployment; and they have recommended the Council to rescind all previous resolutions on the subject and to authorise a fresh report. Unless some *tertium quid* is put forward, the choice lies between a municipal exchange, for which the scheme is as yet nebulous, and an art gallery, for which a competition has been held and designs have been selected. As the committee's avowed object is that "no more time should be lost" in dealing with the site, there seems to be an excellent prospect of the art gallery project materialising.

Concerning the Chancellor of the Exchequer's proposals for a rather formidable increase in taxation, all that need be said is that they are to be taken patriotically. They simply have to be imposed, and the burden will no doubt be borne with the cheery stoicism which represents the best frame of mind in which to face what is inevitable. So far as building interests are concerned, the doubling of the income-tax is as much a twofold evil as it is in other directions. It will certainly not increase the disposition to build, and it levies a heavy toll on the scanty profits that remain to be made. To those capitalists and traders upon whom the new fiscal proposals may have suggested a pusillanimous policy of severe stringency, we would commend the Chancellor's observations that some four-fifths of the money raised will be spent in this country, and that "immediately after the war there must be a period of reconstruction, not merely here, but in Europe, when enormous demands will be made on the manufacturing resources of this country." Incidentally, it is a fair inference that those who build soonest will build cheapest.

In referring briefly last week to Mr. Howard Chatfield Clarke's presidential address to the Surveyors' Institution, we lacked space for the few lines of comment which may now be added, with respect to the main subject of Mr. Clarke's address—the housing question. Mr. Clarke thinks—and we find no difficulty in agreeing with him—that it is worth while to enlist private capital on the side of those who wish to see the people well housed; for public authorities are in the nature of things much less keen to get a fair return upon the investment of the ratepayers' money than are private speculators to make remunerative an enterprise in which the profit-and-loss account is of the essence of the transaction. There are peculiar functions that one or the other builder—here the public authority and there the private owner—is the better able to perform, and neither should supersede the other: for they are not only supplementary, but act as a wholesome check on each other. We are glad to see that Mr. Clarke is in favour of the more extended use of the lighter materials of construction, which, as we have so often urged, may prove to be a very considerable factor towards the solution of the housing problem with which he has dealt so ably and exhaustively.



## HERE AND THERE.

A RECENT reference in this Journal to some essays on architecture by Mr. John T. Emmett, reprinted in the 'seventies of last century, led me to unearth the little volume, and the contents proved so exhilarating that I thought some extracts would be entertaining. The book bears such sub-titles as "The State of English Architecture," "The Hope of English Architecture," "The Profession of an Architect," but after reading it one feels that the best title would be "The Unspeakable Architect," for it is the fact that there are such persons as "architects" walking the earth, and having the effrontery to charge a commission for the injury they inflict on a hapless public, that rankles in the soul of the author. And he seems so very much annoyed about it all that we feel sorry he is debarred, by the effete customs of a flabby people, from sprinkling his pages with words strong enough to compass his wrath. Of his panacea for the troubles afflicting architecture we will speak later. First let us get a clear idea of the miserable being who calls himself an "architect," member of a deplorable "profession." The author shows us how work was done in the golden age of Greece, by way of contrast with our modern methods.

He says: "No architect, as we understand the word, would have designed the Parthenon, with its variety of sculpture and its subtlety of curve; indeed, the need and value of these curves would never have been discovered by an office draughtsman; and their invention and adoption show that the Athenian builder was a labouring artisan. Ictinus, the so-called architect, was a cunning master-builder, the *working* head of a band of *working* men. The same is unquestionably true of Phidias and his helpers; their carvings are clearly spontaneous, not imitative second-hand work. . . . But now instead of a class of noble working men, we have the 'architectural profession,' a number of soft-handed gentlemen who may or may not be able to make sketches, or 'plans and elevations,' but who at any rate can get them made—who prepare what are called 'designs' in any 'style,' and submit them to people ignorant of every style for their approval and acceptance. . . . Designs are made and sent to any distance, to be contracted for by any speculator, who will make money of them if nothing else, and to be built by mere slaves of workmen, who will make sad work of them if they can. . . . There was, certainly, an outline drawing for the Parthenon, to give the general proportions and the common character of style; but all the special beauty of the building was emphatically masons' and carvers', and not draughtsmen's work. The drawing for the Parthenon design might easily have been done in half a day, and at our usual scale for drawings none of the peculiar artistic merit of the building would be indicated. All the curves of mouldings, entasis, and stylobate, are purely building work; and were set out, full size, by the chief master workmen, with the grace and delicate refinement that the men of plastic art invent, and add to their mere graphic studies. They are at the building, and they see where form, beyond the draughtsman's lines, and various expressive modulation, should be given. Modern architects do not create, but only copy all these things, and so are only imitative draughtsmen; but by real artists they were all *worked out*; and workmen, not drawing-masters, formed the subtle curves which give the Parthenon its architectural charm. . . . Architecture rises into art precisely as the sculptural controls and dominates the graphic element, and when the thoughtful lapicide and carver most completely rules and guides intelligent artificers and draughtsmen. At the Parthenon the carver Phidias ruled, and, like the Italian Maitani, this most famous workman

'directed a body of architects and stone carvers. . . . it was to Phidias and other noble handicraftsmen, to draughtsmanship, that the surpassing merits of the Parthenon are due.'

In this way we arrive at the familiar notion of architecture, to be worthy of the name, must be sculpture, and that with the craftsman, fancy is the only way of salvation. Ruskin worked this for all it was worth, and we have men in our to-day who think well of it. Mr. March Phillips lately been traversing just the same ground as T. Emmett did in the 'seventies, the only difference between them being that the former uses a railing point his argument, while the latter goes about with a club, laying about him doughtily: to such purpose, indeed, that he made the architects of his day cross and very sore. But to return to our critic. Here is his account of the thing that was: "In the days of art the mason did not work in solitude, under a greedy contractor and a foreman, nor was he guided by a 'graphic' artist half ignorant and wholly incapable, nor superior (overlooked would be the better word) by a con-destitute alike of knowledge and discernment. He worked in regulated freedom and intelligent association with his fellow-workmen, who at once comprehended and properly appreciated each other's fancy as the chisel rapidly expressed it. The circumstances were entirely sympathetic; he had to submit mendacious competition drawings gazed at by a dozen dolts in architectural ignorance; unfortunately happened to be wealthy or well-to-do, but he was judged entirely by his works, and efficient judges were his peers."

It is the fact of architects being so much concerned with drawings that causes John T. Emmett to say this. He assures us that "the best buildings of all times have been made, not by professional 'designers,' but by their drawing clerks, but by the labouring handicraftsmen," whereas "the chief buildings of the last centuries in Europe have been designed by professional architects. They are sometimes scholarly, important, and expensive; and of late they have been vulgar, childish, or grim, as the prevailing fashion as individual fancy have required." He quotes Edmund Beckett's advice to architects: "What you do, don't call yourselves 'artists.' An artist is a man who executes, whether he more or less understands, besides, and ranges from a Phidias or Apelles to a ballet-dancer or a cook. You are artists in respect to your drawings, but not in respect of the buildings from them; and experience has shown that the connection between the power of drawing and the power of producing architectural pictures and the power of producing buildings."

The sculptor's conception of "ideal architecture" is the podium of the Albert Memorial is especially obnoxious to John T. Emmett. "In one corner of a group of fancy portraits named after celebrated ancient master workmen; somewhat interesting, they represent the carvers, and thus probably the most refined idea of the style and manner of the classic architect. These figures are not shown in workmen's dress, nor in heroic fashion without ornament, nor are they actively engaged in handicraft, but 'assigning to the individual workmen their appropriate tasks'; they are a set of weak-limbed, semi-idle half-naked loungers, wrapped in sheets, engaged much perplexed in watching one who, specially chosen, is busy in a bungling way with compasses and square, and will surely make a painful puncture in his knee."

Most decidedly John T. Emmett is worth watching. We must have more of him next week.



## THE PLATES.

*Hotel Portalles, Paris.*

is an altogether delightful façade, careful of classical precepts, but enlivened by many personal touches. The frieze is admirable, and successful is the fenestration. The central, embracing two of the windows, would perhaps better if extended another foot on either side.

was born at Paris in 1797 and died at Bordeaux. In 1832 he became architect to the Ecole des Arts, and designed the main block of the school, including the hemicycle, library, etc., and he occupied with the decoration of the building up to the time of his death. He carried out many important restorations in France, including the Tuileries, the Château de Blois, the Château de Dampierre, and, in 1849, the Château de Chantilly. In 1849 he was named architect in charge of the Palace of Fontainebleau and the Louvre.

*Huskisson Monument, Liverpool.*

monument, in St. James's Cemetery, is of great interest at the present time, when monuments of honoured dead are under consideration. We have not been able to determine who was the architect.

*French Empire Chair.*

treatment of the arms is the feature of this chair. The remainder of the design following the usual Empire style and being decorated with the ornament characteristic of the period—the early nineteenth century.

*City Hall, Perth.*

building has recently been completed from designs by Messrs. Clifford and Lunan, of Glasgow.

*Designs for One Bay of a Façade.*

designs illustrated are of interest as showing the work that is now being done in architectural education in lesser provincial towns of the Kingdom. We have not the opportunities that are afforded in the larger cities. The Newport classes are under the energetic direction of Mr. F. Radford Smith, B.A., who says: "In most of the smaller provinces the only opportunity that is provided in the way of architectural education at the local art schools are evening classes carried out in accordance with the syllabus of the Board of Education. In the few isolated exceptions, the results produced by this system have fallen so very much below the desired standard that in many quarters their continuance has been discouraged. When Registration became the accepted policy of the R.I.B.A., its president, Mr. Reginald Blomfield, laid it down in his inaugural address (November, 1912), that the only basis for any system of Registration must be thorough and complete architectural education. If, therefore, the only kind of architectural education that is countenanced is such as can be provided by

liberally endowed day schools, whose existence is only possible in the largest towns, then the great majority of the youths who are thrust into the profession as pupils can never attain 'a thorough and complete architectural education.' Whilst fully appreciating the really phenomenal success attained by some of the big architectural schools, it is obvious that for one student who is able to enter such schools there are a dozen who are placed by fond parents in ordinary provincial offices regardless of any natural bent, and sometimes unfortunately very deficient in elementary education." At Newport Mr. Smith is carrying out excellent work under a scheme of evening classes for students in which particular attention is given to exercises in design like that which we illustrate.

*Drawing-room Window at Tuesley Court.*

This offers an interesting example of a window entirely carried out in brickwork, with leaded lights.

*Working Drawing of House at Wimbledon.*

The erection of this house was stopped on account of the War, but it is hoped that the work may soon be proceeded with.

## CORRESPONDENCE.

*Austrian Oak.*

To the Editors of THE ARCHITECTS' AND BUILDERS' JOURNAL.

SIRS,—We notice that under "Editorial" in your issue of October 28, you comment upon an anonymous letter to "The Times," which complained that H.M. Office of Works was inviting tenders for certain book-cases in *Austrian oak*, and with this complaint you expressed concurrence.

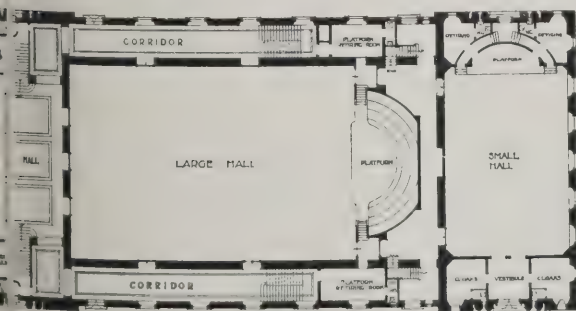
Now, as we advertise in your paper (amongst other woods for sale) *Austrian oak*, of which timber we hold a very large stock, we should like to point out the injustice that is likely to be done to ourselves and other holders by any attempt to boycott stocks which were purchased and imported before the war.

As regards the merits of other oaks as against *Austrian oak*, and the attempts that are presumably being made to boom *Japanese oak*, we may say we are sellers and large holders of all kinds of oak. There is use for all of them; but the continued specification by architects for so many years of *Austrian oak* for *fine joinery work* is one of the many proofs of its desirability above all others for this purpose.

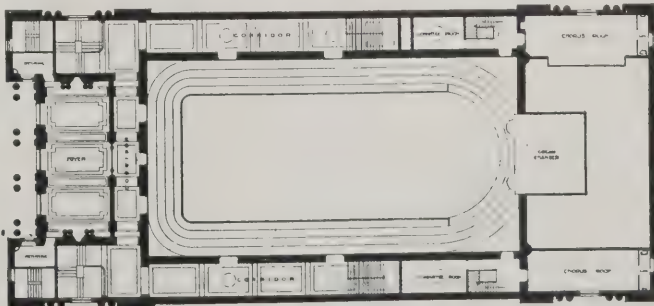
For Wm. Oliver and Sons, Ltd.,  
E. T. OLIVER, *Director*.

120, Bunhill Row, E.C.

[It is hardly necessary to say that, notwithstanding our comment on the specific point raised by "The Times" letter, we are in full sympathy with our correspondents' point of view. Further comment will be found in our Editorial pages.—EDS. A. AND B.J.]



GROUND FLOOR PLAN



UPPER FLOOR PLAN

CITY HALL, PERTH. CLIFFORD AND LUNAN, ARCHITECTS.



## THE FUTURE OF THE SURREY SIDE.

BY PAUL WATERHOUSE, M.A., F.R.I.B.A.

AT last week's meeting of the Royal Institute of British Architects (Mr. Ernest Newton, A.R.A., president, in the chair) a paper on "The Future of the Surrey Side" was read by Mr. Paul Waterhouse, M.A., F.R.I.B.A.

Mr. Waterhouse pointed out that for some time past a committee of The London Society had been occupying itself with the problem of the development of the Surrey side of the Thames. Its attitude had not been to assume that the Surrey side was a proper playground for the sport of visionaries, but to recognise that, from what one might call territorial economies, this side was bound to undergo extensive developments. The important question to decide, therefore, was not whether those developments should take place, but how they should take place. Opinions had been offered from a great many directions on the treatment of the right bank of the Thames, and the general gravitation of these opinions favoured an embankment road. Some enthusiasts were all for a boulevard—a wide road and trees; others were indifferent about the trees, but insisted on public buildings. In any case Mr. Waterhouse said he did not think public opinion would be satisfied without a riverside road of some sort. The mud-bank on the Surrey side, all the way from Westminster to Southwark, was of such width that a 100-ft. roadway, if established along its outer edge, would have its inner side well in advance of the present shore-line, or wharf-line, and enquiries showed that the placing of an embankment along the north edge of the mud would be beneficial to the flow of the river itself.

As to whether the south side would lose its commercial character, Mr. Waterhouse said there was a good deal of wisdom in the suggestion that a portion of the proposed embankment should be so planned as not to interfere with the actual wharf properties which now occupied the shore. If these in time declined, their sites could be adapted to the building of monumental structures, but if the wharves thrived there was the opportunity for rivalling the comely waterways of Amsterdam or the antique commercial dignity of Ghent and Bruges. Expressed opinion on the subject of the retention of commerce on the Surrey shore was, he said, uttered by two kinds of enthusiasts. There was the man who said, "Leave the jolly old tumble-down wharves just as they are, leave the mud and the cranes and the bits of broken jetty, leave the shot tower and even the whisky tower and the tea tower." The other enthusiast said: "Sweep it all away, tidy it all up and let the soil blossom with public buildings varying in size and cost from a million to two hundred thousand pounds." If you asked which of these men ought to have his way the answer was, "the first man." But the fact is that he (the first man) couldn't have his way. Things happened on the Surrey side whether we wished them to happen or not. The power station of the Post Office was one of the things that had happened. He knew nothing of the genesis of this unfortunate building, but it quite spoiled, by its styleless insistence, a quarter-mile of the landscape which it encumbered. Mr. Waterhouse went on to say that, as pointed out in the report of the South Side Committee, the present wharf frontages could be maintained, even if the new em-

bankment were made, by the adoption of the by-stream or lagoon dock principle. Barges would then enter these backwaters or lagoons by channels passing under the embankment.

*Bridges.*

Mr. Waterhouse proceeded to discuss the various suggestions put forward as to the best method of bridging the Thames. The new Charing Cross bridge project, at first a visionary idea, was now regarded as a reasonable proposition by all those practically concerned. The project involved the abolition of Charing Cross Station, the formation of a bridge for foot and wheeled traffic in lieu of the present railway bridge, which "reluctantly harboured a stream of compressed pedestrians," and, of course, the establishment of a new station on the Surrey side. The idea was certainly excellent; no one knew to what extent the mere annihilation of that awful nightmare of steel would remake the vanished beauty of the Thames. That alone would be worth fighting for, and the battle once won, there was not a man with an eye in his head who would not clamour for the removal of the Blackfriars horror also.

Referring to the bridge schemes that came before the South Side Committee (of which he was chairman), Mr. Waterhouse said there was a battle of the levels. Mr. Lucas wanted a high-level bridge starting from the Strand at the Strand level, surmounting the present north side embankment, and reaching the new South-Eastern Station at the level of its own railway lines. An interesting variant of Mr. Lucas's scheme showed a roadway starting from the level of St. Martin's Lane, and surmounting the Strand as well as both embankments. However, the Committee voted, and the vote fell on a low-level bridge. This was largely due to the production of a low-level suggestion by Mr. Niven and Mr. Raffles Davison.

*The Road Question.*

The road question was by no means the least important of the Surrey side problems. The practice of letting all the roads radiate on a focal point had resulted in the dial centres known as St. George's Circus, the Elephant, and Vauxhall Cross. The ideal planning for the arterial roads approaching a town would be that every such road should, instead of joining cause with other incoming routes, divide itself into two tracks at the outskirts of the town, thereby not only giving its passengers the chance of shortening their journey by directing themselves towards the quarter required, but also counteracting the proportionate increase of traffic which grows as the town is approached, even in a road that has no important branches brought into it. For many years he had advocated, with others, a comparatively direct road from Westminster Bridge to Southwark Bridge, thus providing a useful drive from the West End to the City. He was told that this could not be, and the best he could hope for was an improvement of the connections between Lambeth Bridge and London Bridge. If he could not have his road, he suggested that there should be two good east and west roads, one north of the South-Eastern line and the other south of it. His east road would be that adopted in Mr. Niven's plan, running due east from the end of Waterloo Bridge, and serving as a sort of bow-string to the arc

of the embankment curve. The route of the southern road was no so easy to determine. He had made an attempt at a suggestion. After putting down on paper he went to look at the route and was pleased to find that Ecclesiastical Commissioners had anticipated his wishes at one part of the route. But the Commissioners' road was narrow, and there was more culture in its curve than seemed necessary.

*The Discussion.*

Mr. Edwin T. Hall said their minds were so engrossed with the science of the question at the present time that they were hardly able to contemplate anything but construction; but they looked forward to the time when war would be over and they would again be able to concentrate on the great problems of planning, and there was no more part of it for practical consideration of the south side of London. The great problem, however, that prevented a scheme from being carried out was the fabulous cost involved. He remembered that many years ago there was a scheme brought forward for laying out the City of London, and the Lord Mayor had a committee together. But the first meeting held broke up in half an hour because it was pointed out that one small street alone the cost of the suggested improvements would amount to £12,000,000, and the scheme as a whole would cost something like twice the National Debt! But, regarding the south side, improvements would be relatively inexpensive from the point of view of land values, and it was now so intimately associated with the north side that something must be done to improve the traffic facilities bringing the great southern roads into the City of London. He thought they would agree that whether or not the bridge schemes could be carried out today or to-morrow, they were admirable schemes to keep before them as something that could be carried out during the next century or the century after. He thought the lagoon scheme should be the one to be carried out. It had the great recommendation that it reclaimed land from now waste, and they would not have to get a beautiful embankment, which would not have to destroy the war-time there, but if in course of time these side businesses were given up they would have magnificent frontages on which could put very fine public buildings, back of the lagoons, which would become ornamental waters instead of commercial waters. They would all be delighted to see Charing Cross Bridge removed from "the face of the earth." As to the new bridge scheme the low-level had been thought the best and would admit of such an architectural feature as a Grand Place at the foot of Northumberland Avenue.

Colonel Hellard, R.E., Secretary of the Road Board, said there were few engineering difficulties to overcome in any scheme but there was the great financial difficulty all the way through. With a road running east to west there was a danger of the additional traffic on to the Tower Bridge and London Bridge, the two bridges capable of taking more traffic at the present time. Any line running from



Bridge to Tower Bridge would un-  
doubtedly shorten the journey, but it would  
increase the expense of the traffic on those  
bridges. The transference of Charing  
Cross Station to the south side of the river  
would undoubtedly be beneficial to the  
city of London.

Mr. Swinton pointed out that the  
company had said that in no cir-  
cumstances could Charing Cross Station  
be moved until the road bridge was built.  
It had been through all the financial  
difficulties of the improvement matter some-  
times, and he found the schemes were  
not so easy to carry out as appeared  
at first. He did not think an embank-  
ment on the south side was going to  
be of much use for traffic, but there was  
nothing to be said for "a great wide  
avenue" along the south side for pedestrians,  
which might be parks where children  
could play.

Mr. H. Statham recalled that Napo-  
leon, though he had never seen the  
city, had expressed the opinion that  
London could make a grand boulevard of it.  
Napoleon meant that boulevards  
should be made on each side of the  
river. He thought himself that a road  
from Southwark Bridge to West-  
minster would make the finest run in the  
city if they had boulevards on both

Mr. Adshead said he rather hoped  
to hear something of the removal of  
Charing Cross Bridge and Station. It was  
the fact that they separated trunk traffic  
from suburban traffic. The suburban  
traffic could go over a Grosvenor Street  
bridge, and the traffic from Victoria could  
go over the old underground, and there  
could be a new tube line down Victoria  
Street to Whitehall and the Strand. The  
need for new communication between  
Westminster and the City was always of  
great interest, and that was his reason  
for thinking they could do away with  
Charing Cross Station and railway bridge  
and have a new main bridge instead.  
Mr. Paul's. He did not think there  
was need for a road on the south side of  
the river. It was a very advanced  
scheme to suggest such drastic changes, and  
he did not think it would ever happen. He  
thought, however, they would have some  
government buildings on the south  
side. For did he think they would ever  
have a lagoon system. He was inclined  
to think that the improvement in the  
city systems would take away all the  
traffic now conducted on the river to an  
inconvenient spot further down. He  
agreed with the abolition of the  
hoop-iron system or road communications.  
The hoop-iron system would be very detri-  
mental to the appearance of the city. The  
true centre was the true system of dis-  
tributing and collecting traffic.

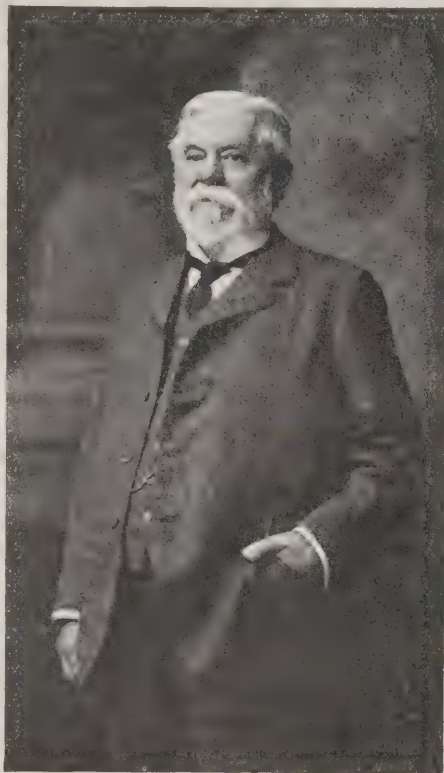
#### Aux Morts.

At the commencement of the meeting  
condolence was passed with the  
deaths of recently deceased members:  
Mr. C. H. Harrison (past-president of  
the Institution of Architects), Mr.  
H. Whittaker, Mr. John Arthur  
Preece, and Mr. B. S. Ker.  
The death of Mr. Wayland Ker,  
formerly librarian of the R.I.B.A.,  
was announced. A special vote of  
condolence was passed with Mr. Charles  
Doll, F.R.I.B.A., on the loss of his  
son, Philip Walter Doll, of the  
5th (Liverpool) Regiment, who was  
killed in action near Ypres, and to whose  
memory a tribute was paid in the  
pages of this Journal last week.

## OBITUARY.

### Mr. Joseph Hill.

We regret to announce that Mr. Joseph  
Hill, of the well-known firm of London  
builders, Messrs. Higgs and Hill, Ltd.,  
died on November 17. Mr. Hill was the  
son of William Matthew Hill, to whose  
business he succeeded with his brother,  
Thomas Rowland Hill, and who together  
traded for several years as Hill and Sons  
at Charlton Works, Islington. In 1874  
they joined the son of Mr. William Higgs,  
of Crown Works, South Lambeth Road,  
and for three years the style of the firm



THE LATE MR. JOSEPH HILL.

was "Hill, Higgs and Hill," but in 1877  
the late Mr. Thomas Rowland Hill retired  
from business, and the firm have since  
traded under the style of "Higgs and  
Hill." In 1898 the business was converted  
into a private company, for family reasons.  
Mr. Joseph Hill leaves a widow and nine  
children. Two of his sons are directors of  
the company.

## ENQUIRIES ANSWERED.

### Hoop-Iron Bond.

W. writes: "Can you tell me where I  
can get Tyerman's stabbed hoop-iron? I  
have specified it, but have been unable to  
to obtain it."

—I have come across no recent instance  
of the use of "Tyerman's stabbed hoop-  
iron," though a material which appears to  
answer that description is sometimes un-  
covered in dismantling buildings of about  
fifty years ago. I presume, therefore, that  
it is no longer obtainable. Hoop-iron  
bond is, of course, still largely used and is  
obtainable from any builders' merchant at  
126.30 lb. per 100 ft., to 5/8 in. wide by 21  
B.W.G. at 6.95 lb. per 100 ft. In use it  
should be tarred and sanded before build-  
ing in, so as to grip well. A more recent  
method of reinforcing brickwork is the use  
of mesh wire in narrow widths, or the  
patented "Bricktor" wall reinforcement.

Querist is advised to write to Messrs.  
Johnson, Clapham and Morris, Ltd., Lever  
Street, Manchester, for their free text-  
book of tables and information on the sub-  
ject of reinforced brickwork. G.

### Valuation of Property.

NEW HAND writes: "How, from the fol-  
lowing facts, can one determine what is  
the fair rental value (from the landlord's  
point of view), and the percentage on the  
investment: Cost of land, £450 freehold;  
cost of house, £750; mortgage on the pro-  
perty, £450 at 4 per cent. It is assumed  
that tenant does inside repairs and is to be  
granted a three years' lease. Can you re-  
commend me an inexpensive book dealing  
with the subject?"

—It has usually been considered that  
good-class house property should pay to  
its owner an income equal to 5 per cent.  
on its cost, so that as your house, with its  
land, cost £1,200, you ought to obtain £60  
per annum for it. The fact that the land-  
lord is able to raise part of his capital at  
only 4 per cent. has no bearing upon the  
rental value of the premises, which, after  
all, is merely its value in the market.  
There are many good handbooks upon the  
valuation of property. Try "Houses and  
Lands as Investments," published at 1s.,  
by E. Wilson, 54, Threadneedle Street,  
E.C. F. S. I.

## COMPETITIONS.

### R.I.B.A. Problems in Design.

The designs submitted under Subject  
XVII. will be on view in the Galleries of  
the R.I.B.A. next Monday, Tuesday, and  
Wednesday, November 30, December 1,  
and December 2, inclusive, between the  
hours of 10 a.m. and 8 p.m.

### Technical School, Southport.

The award of the assessor, Mr. Paul  
Waterhouse, F.R.I.B.A., is as follows:  
1st, Mr. James Miller, A.R.S.A.,  
F.R.I.B.A., Glasgow and London; 2nd,  
Messrs. S. N. Cooke and Twist, Birming-  
ham; 3rd, Messrs. Marshall, Robinson,  
Son, and Wheeler, and Messrs. Henderson  
and Brown, Bolton. The designs were on  
exhibition at Southport last week.

### New School, Dundee.

The assessor's award has been placed  
before the Dundee School Board in con-  
nection with the recent competition for the  
Bellfield Street School. The following  
were the selected architects: (1) Maclaren,  
Sons, and Soutar, £19,792; (2) Maclaren,  
Sons, and Soutar, £22,703; (3) Vernon  
Constable, £22,136; (4) Thomas and  
Wilkie, £22,443. Messrs. Maclaren,  
Sons, and Soutar's first design has been  
adopted by the board, and premiums of  
50 guineas and 30 guineas respectively  
have been awarded to Mr. Vernon Con-  
stable and Messrs. Thomas and Wilkie.

## LIST OF COMPETITIONS OPEN.

DECEMBER 4.—TUBERCULOSIS HOSPITAL,  
SOUTHEND-ON-SEA.—The corporation in-  
vite designs for a tuberculosis hospital.  
Premiums, £100, £50, and £25. Particu-  
lars, Mr. Ernest J. Elford, Borough Engi-  
neer, Southend-on-Sea.

DECEMBER 7.—GIRLS' SECONDARY  
SCHOOL, LUTON.—The Bedfordshire  
County Council invite architects willing to  
compete for a secondary school at Luton  
to send in their names by December 7 to  
Mr. W. W. Marks, clerk to Council, Shire  
Hall, Bedford. Eight architects will be  
selected, each to receive an honorarium of  
ten guineas.



## ELECTROLYSIS IN RELATION TO BUILDING CONSTRUCTION.—II.

BY W. NOBLE TWELVETREES, M.I.Mech.E., A.M.I.E.E., M.Soc.Ing.-Civ.

(Concluded from page 302, No. 1036.)

IN countries where voltage drop regulations are not in force the creation of stray currents is inevitably followed by serious risk to underground pipes and structures lying in the direct path of the currents. The term "stray" is not altogether appropriate, for it may give rise to the erroneous impression that the currents so designated are able to wander about in any direction "as a roaring lion, seeking whom he may devour." On the contrary, they are confined to definite lines, generally following the direction of the rails, unless led away by the ramifications of electrically continuous underground piping systems.

On reference to the explanation given in the early part of this article, it will be recognised that stray currents do no harm to underground pipes except at points where they leave the pipes to enter the surrounding earth. Every such point is an anode and electrolytic corrosion will there take place to an extent governed by the quantity of current measured in amperes.

Stray currents chiefly and primarily attack pipes and lead-sheathed cables buried under tramway or other traction rails. At points where current leaves the rails corrosion of the rails occurs, and if the pipe line is electrically continuous the pipes will only be corroded in the neighbourhood of the generating station, where, as shown in Fig. 1, the current leaves the pipe line. If, however, the pipe line includes some joints offering relatively high resistance to the passage of electricity the current will leave the pipe at such joints and thereby cause joint corrosion. Moreover, in places where two or more underground pipe lines exist beneath the rails current may pass from one pipe to another.

The electrolytic corrosion of iron and steel plates usually results in "pits," eventually extending right through the metal and frequently giving no visible indication of the injury done.

The corrosion of underground pipes is not confined to mains such as that represented in Fig. 1, but extends also to service pipes branching out from the mains. This point is illustrated by Fig. 2, where the water main acts as a cathode receiving current from the earth, and the service pipe acts as an anode in passing current to the lead-sheathed telephone cables above, which in this case were bonded to the return conductor at the generating station. The result of any such arrangement is corrosion of the service pipe if stray current flows from the traction rails as suggested in the diagram.

Fig. 3 shows that in places where dangerous stray currents are permitted electricity may enter a building uninvited through a water service pipe, passing thence into the house piping installation and finally leaving the building by way of the gas service pipe. If the stray current passes from one set of pipes to the other by metallic contact there is always a risk that dangerous heating may occur, especially if the points in contact are liable to be separated by vibration. The result of separation in this way would be the production of an arc with serious risk of fire.

It is obvious that if stray current is able

to enter a building through water or gas pipes it may pass into structural steelwork from the pipes by direct contact or into the reinforcement of concrete if the latter material is moist enough to act as an electrical conductor.

So far as the writer is aware, no evidence can be adduced of any case of destruction by electrolysis of structural steelwork, masonry, or reinforced concrete in this country. The only case mentioned in the recent report of the Institution of Civil Engineers is that of an American building where bare conductors were used under conditions distinctly favouring electrolytic conduction, and cannot be taken as applicable to British practice.

The possibility of injury by sufficiently strong stray currents has been discussed freely, and numerous experiments have been made with the object of determining the effects of electrolysis on iron and steel embedded in mortar and concrete. The most complete investigation of the kind was one made at the United States Bureau of Standards during the years 1911 and 1912, the results having been summarised and discussed in a paper read at the annual meeting of the National Association of Cement Users in 1913.

The investigation included: (1) Laboratory experiments relating to the nature and cause of the phenomena produced by the passage of electric current through concrete; (2) investigation in the field with a

view of establishing the probability of the danger of electrolysis in practice; (2) inquiry into the possible means of mitigating trouble by electrolysis.

The laboratory experiments were of a purely academic character and were conducted under conditions purposely established so as to make electrolysis possible. Thus, the iron used for the conductors was applied in the form of electrodes, instead of being in actual contact as it would be in actual practice, and the concrete was purposely moist and immersed in water, as in Figs. 1 and 2, so as to make it capable of electrolytic conduction. Having regard to the conditions it is only natural that electrolysis should have occurred in general accordance with the explanation given at the beginning of this article.

The experiments, however, brought to light some particularly interesting results. The tests were carried out with voltages ranging from 2 to 115 volts. With an embedded electrode acting as the anode (see Fig. 4), currents at pressures of more than 100 volts caused corrosion of the concrete and consequent cracking of the concrete by the increased bulk of the anode. Different results were obtained with currents at 2 to 15 volts. In the first numerous specimens were placed in contact with current at 15 volts and watched

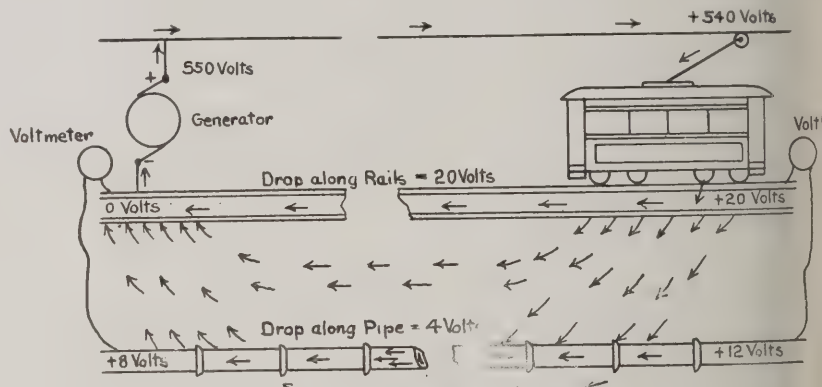


Fig. 1.

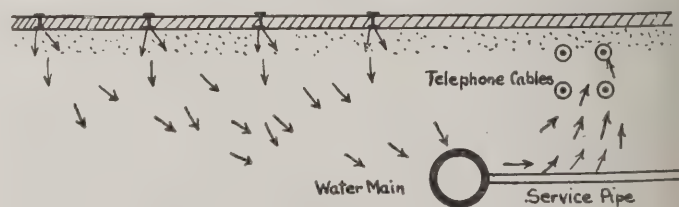


Fig. 2.

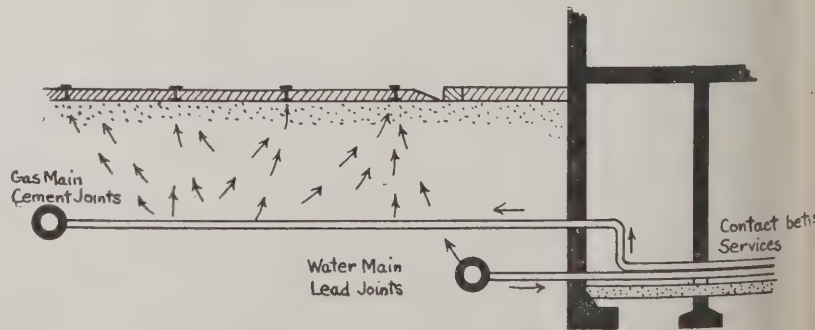


Fig. 3.



seven and a half months. At the period it was found that there appreciable corrosion of the anode of the concrete had not been

A second series of experiments at lower voltages showed that of the anode did not take place potential was considerably above occurring in actual practice. It is noted that while the main factor of electrolysis is the quantity of electricity the rate at which the current is also a factor of importance. More is evident from the results that the rate at which damage occurs decreases as the voltage is lower. This is due to the fact that when the voltage is one-fourth of that employed in the tests previously made the specimens were able to withstand injury for a period of more than 200 times the amount of that required for destruction of specimens under the influence of the higher voltages. It was further noted that this difference in the rate of corrosion at low and high voltages is due to a difference in temperature, so long as the heating effect of the current is insufficient to raise the temperature of the specimen to about 45° C. Centigrade little or no corrosion of the anode takes place.

Experiments made with the emulsion electrically connected so as to form a cathode (see Fig. 5) showed the absence of corrosion, but the results gave evidence that the chemical action of the cement had been in the immediate vicinity of the

The results showed further that, in the case of the anode effect, which is serious at relatively high voltages only, the effect may be developed at all voltages and therefore is directly proportional to the quantity of current and the rate at which it flows.

As a result of their investigations of structures exposed to stray currents, the American Standards state positively that there is no cause for widespread corrosion and that with certain precautions there is no danger of injury at all from stray currents.

It is assumed that the reader bears in mind the point that the enquiry of the American Standards refers particularly to structures which are due to American practice of dealing with electricity. As has been proved to be comparatively small in a country where large currents are permitted by law, it is not that no serious risks are entailed by the presence of stray currents in traction systems in countries where the drop of voltage is strictly limited. Nevertheless, every architect and engineer is about to undertake the erection of a building or the installation of underground pipes or structures may properly consider the possibility of electrolysis if the work contemplated

is to be executed in the immediate vicinity of a traction system, and especially if in the neighbourhood of the generating station.

So far as buildings are concerned, the only means for the entrance and exit of stray currents, under ordinary conditions, is by service pipes or other conduits in electrical connection with mains laid in the path of the traction rails. Therefore a very simple and effective precaution is to provide insulating joints in every pipe entering the building from the ground, and to insulate all lead-covered cables that are brought into it from underground mains.

Architects are quite accustomed to the idea of excluding the entrance of moisture by the application of damp-courses, and if uneasiness should be felt with regard to the possibility of injury by electrolysis it will be just as easy to apply insulation joints and so to preclude the entrance of any stray currents of electricity. The same precaution can be adopted equally well in the case of existing structures. In the case of steel-frame buildings and reinforced concrete buildings, where the steel members or the reinforcing bars are in electrical contact, an alternative precaution is to earth the steel at one or two points. It should be noted, however, that earthing in this way cannot be recommended as an effectual means of protecting any structures wherein disconnected steel members are built into brick or masonry, or embedded in concrete. Isolated steel members so used will act as electrodes on exposure to the influence of stray currents, and the intervening masonry or concrete, if moist, will form the electrolyte. Therefore, to render a structure of the kind safe against the possibility of electrolytic injury it would be necessary to earth each individual piece of steel.

While electrolysis has undoubtedly been responsible in America for considerable trouble in underground pipe systems accessible by stray currents from electric railway and tramway rails, it should be remembered that chemical action is a far more fruitful cause of corrosion. The point is one deserving attention by those who may be tempted to follow the modern fashion of everlooking simple and obvious explanations in favour of abstruse and unconvincing hypotheses.

In conclusion, it may be stated that during the last two or three years troubles from electrolysis in America have been greatly diminished by the adoption of European methods for the avoidance of dangerous stray currents from electric traction conductors. In places where such methods have been applied electrolytic troubles appear to have vanished, and there is no doubt that in course of time American practice will be brought generally into line with that prevailing in the United Kingdom and on the Continent.

## SOCIETIES AND INSTITUTIONS.

### *The Buildings Damaged by the Germans.*

The Birmingham Architectural Association have now their headquarters at the Royal Society of Artists, and on November 13, before both bodies, Mr. W. H. Bidlake, M.A., read a paper on "The Buildings Damaged by the Germans." Mr. Bidlake said it still seemed a surprising thing that the German people, with whom they had been wont to associate such a high standard of intellectual activity, should in these latter days have become the destroyers of the splendid works of art of other times. In the East of Prussia, however, they had always been a warlike and turbulent people. Since the earliest days the people living on the eastern shores of the Baltic remained heathen long after the rest of Western Europe was Christianised, and they only embraced Christianity then at the points of the swords of the Teutonic knights. They adopted Christianity late, and, it was possible, only as a sort of veneer. To-day many German writers seemed to think the Christian religion a religion of decadence and weakness, whereas the glorious heroes of the old German mythology were knights of valour. For the Christian religion they had substituted the new religion of valour in battle, of brute strength. The practical application of this religion of brute force—*kultur* contrasted with the culture of other Western nations—Mr. Bidlake showed by picturing France and Belgium before the war and after. He showed the most beautiful architectural features of the country over which the battle has raged before the German invasion, and then the trail of destruction left by the Germans from Liège, through Namur, Dinant, Louvain, Malines, Antwerp, Termonde, Brussels, Ghent, Bruges, Oudenarde, Courtrai, Roubaix, Lille, Arras, Amiens, Senlis, Soissons, Laon, and Reims to Ypres. Mr. Bidlake described the famous Flemish architecture displayed in the cathedrals, churches, and hotels de ville of Belgium, and passed on to the beautiful Gothic buildings of France, which found their highest form at Reims.

### *Some Sheffield Topics.*

In the course of his presidential address to the Sheffield Society of Architects and Surveyors, Mr. A. F. Watson, F.R.I.B.A., said that town planning had certainly created a large amount of correspondence and talk in the city, but so far, they were told, had not made much headway. The municipal authorities were generally very anxious to get hold of property at the least cost and to widen roads outside the city which, in the opinion of the authorities, would benefit the public. But in the city, where street widening would have been very beneficial to the citizens at large, two cases had been lost sight of where the opportunity had occurred to widen streets with advantage when the old buildings were removed. He alluded to York Street and George Street. Referring to the extensions of the Municipal Buildings and Lodge Moor Hospital, he said it was somewhat of a hardship that the Corporation should have considered it necessary to have the quantities measured by London surveyors. He supposed it was because the City Architectural Department was too busy to do the work. But there were plenty of architects and quantity surveyors in Sheffield who were well able to do it, and some of them probably none too busy. Mr. Watson mentioned that the vice-president (Mr. Charles B. Flockton) is now

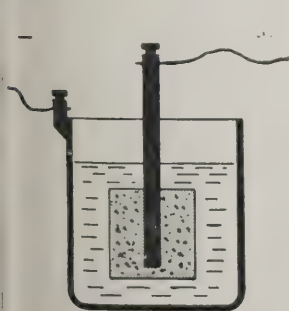


Fig. 4.

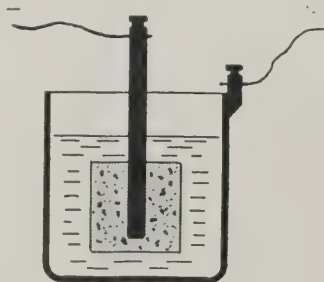


Fig. 5.



serving his country, while they were proud that there had been such a good response from their members: 34 representatives of the profession in Sheffield and 2 from Rotherham had joined the Forces.

The President commented on the suggestion brought before the City Council that in the revision of the Corporation by-law regarding damp-courses, bitumen sheeting should be excluded. He said he hoped the Corporation would consult the architects and builders of the city before deciding upon such a stringent by-law, for, in his opinion, the proposed wording of the revised by-law would be very detrimental to the interests of the public. He did not consider it was either advisable or right to confine damp-courses to sheet-lead, rock asphalt, and blue brick, as was proposed.

A good deal of attention was attracted by an exhibition of drawings and sketches by the late George Devey. These drawings came into the possession of Mr. W. S. Purchon, A.R.I.B.A., who has presented them to the University Library. It was Devey (born 1820) who prepared the way for Norman Shaw, Philip Webb, and Eden Nesfield. "This," says Mr. Purchon, "is clear from the fact that in 1856 he designed Betteshanger, near Dover, for Lord Northbourne, whereas Norman Shaw, who was born in 1831, did not design Lowther Lodge until 1870, while Nesfield, who, with Shaw, is popularly supposed to have started the new movement, was not born until 1835, and was serving his articles between 1851 and 1853 in the office in which Shaw was a pupil. Devey died in 1886, his partner, Mr. James Williams, becoming his successor. That Devey is so little known is certainly not because his work was either inferior in quality or small in quantity, for it was on the contrary both delightful and extensive; rather is it because Devey was essentially a man of quiet, modest, and retiring disposition."

#### *Reims Cathedral.*

A paper on "Reims Cathedral" is to be read before the Architectural Association by Mr. Aymer Vallance, M.A., on December 7, at 8 p.m. (The "Architectural Review" for November gives some excellent photographs of the cathedral as it was before the bombardment and fire and as it is to-day).

### POINTS OF DISPUTE IN THE SCOTTISH BUILDING TRADE.

At the recent annual general meeting of the Glasgow Building Trades Exchange, the Secretary (Mr. David Cook) read the annual report, which, among other things, dealt with a deadlock that had arisen in regard to the mode of measurement for wright work between the Scottish National Building Federation and the architects and surveyors. Sir George Askwith had been called in to endeavour to bring about an agreement, but a committee appointed to endeavour to adjust schedules failed to agree. The Council of the Exchange had had before them a statement of all that had taken place, prepared by the representatives of the architects and surveyors on Sir George Askwith's Committee. They had not had an opportunity of perusing any statement by the Scottish Federation, if indeed, any such had been prepared. They were therefore not in a position to make any definite pronouncement on the merits of the case beyond the opinion that if the statement of the architects and surveyors was correct the position taken up by the Federation appeared to be unreasonable.

The Council of the Exchange conceived that if they could do anything to bring about a satisfactory removal of the deadlock it was their duty in the interests of the whole trade to do so. They had, with that in view, addressed letters to the secretaries of the various masters' associations in Glasgow and the district urging these associations to make themselves acquainted with the whole facts, and to make public their definite and decided views as to the merits of the case, and to which parties, if any, they attributed the responsibility for the present regrettable position of matters. The Council maintained that the Exchange must have a hand in the framing of any general conditions of contract that might be undertaken. There had, the report also stated, been considerable friction among certain branches of the trade regarding the question of supplying scaffolding. Hitherto the wrights had supplied all scaffolding on a job. They now declined to do so, and an agreement had been arrived at among the trades interested, with the exception of the plasterers, that each supply their own planks and trestles. The plasterers had intimated that they were only prepared to supply their own scaffolding if an item price of two per cent. on the cost of plaster work was inserted in schedules. This had not been agreed to, and meantime the plasterers affixed an adhesive label to all schedules adding such an item.

### PROJECTED NEW WORKS.

#### *Extensions, Newcastle.*

Newcastle City Council are considering the expenditure of £21,210 for the erection of Rutherford Technical College extension.

#### *Improvements, Durham.*

The Durham County Council are proposing to spend £13,341 on improvements and alterations to schools under their control.

#### *School, Clydebank.*

The Old Kilpatrick School Board have decided to proceed with the erection of an elementary school at Whitecrook, Clydebank.

#### *Public Hall, etc., Lytham, Lancs.*

Lytham Council are considering the erection of a new public hall, and the construction of a marine lake and open-air swimming-bath on the foreshore.

#### *Church, Eastbourne.*

A new church is to be erected in the Old Town district of Eastbourne to hold about 350 people. A design is being prepared by Mr. G. E. Streatfeild, F.R.I.B.A., of 9, Stone Buildings, Lincoln's Inn, W.C.

#### *Housing Scheme, Holywell.*

A Local Government Board enquiry has been held into an application by the Urban District Council of Holywell for leave to borrow £13,500 for the purposes of a housing scheme.

#### *Isolation Hospital, Amersham.*

The Rural District Council of Amersham, Bucks, have approved plans prepared by Messrs. Wills, Anderson, and Kanla for an isolation hospital. The estimated cost is between £3,000 and £4,000.

#### *Isolation Hospital, Tynemouth.*

The Tynemouth Corporation Health Committee have approved the sketched plans, submitted to them by the borough surveyor, of an isolation hospital with sixty beds and a sanatorium with twenty-four beds, and have ordered

them to be submitted to the Local Government Board. The estimated cost is £30,000 for the hospital and £2,700 for sanatorium.

#### *Shops, Avy.*

Ayr Dean of Guild Court have plans for the erection by the Kilmar Equitable Co-operative Society of and dwelling-houses in George Street King Street at an estimated cost of £2,700.

#### *County Sanatorium, Herts.*

At the last meeting of the Hertford County Council it was stated that and estimates for the erection of the county sanatorium at Willian had been considered by a special committee, were generally approved. The estimated cost would be £27,662 12s. 3d., making total with the land purchase £33,662 12s. 6d.

#### *Building Schemes, Manchester.*

At a meeting of the Manchester Education Committee the Chairman stated during next year it was hoped to start three new elementary schools, providing accommodation for 2,810 children. In addition they expected to begin building operations for the erection of new schools at Orford Street, Cheetham. The other proposed to carry out the extension of the School of Technology as soon as the various formalities were completed.

#### *Sanatorium, Sheffield.*

The Finance Committee of the Sheffield City Council have approved the proposed expenditure of £20,000 (exclusive of £2,750 for the site), for the erection of a Tuberculosis Sanatorium for Women at Rivelin Valley Road. The scheme will provide accommodation for 100 patients and the attendant staff, and will comprise a main nursing block for forty-six cases in single and double rooms, and detached convalescent pavilions for the seven patients in each, in double-bedded rooms.

#### *Bridge, Cambridge.*

At the last meeting of the Cambridge County Council the Chairman reported that a conference was held between representatives of the Cambridgeshire County Council, the Isle of Ely County Council, the Newmarket Rural District Council, the Ely Rural District Council and the Board, with reference to the erection of a new bridge or bridges over the river Ouse and the old West River, in connection with the proposed through route for motor purposes from Huntingdon to Bury St. Edmunds, and that the Road Board undertook to provide two-thirds of the capital sum required to build a bridge at Dimmock's Cote. Consequently the County Surveyor had been directed to prepare the necessary preliminary survey to prepare plans and specifications.

#### *New Companies.*

British Corrugations, Ltd., has been registered as a new company dealing in asbestos cement corrugated sheets. The capital is £10,000 (made up of 2,500 Preference shares and 7,500 £1 Ordinary shares) and the registered offices are at 110, Cannon Street, London, E.C.

The New Concrete Co., Ltd., has been registered with a capital of £30,000, for the manufacture of artificial stone and concrete blocks, etc., and to acquire the business carried on at Heston, Middlesex, and the undertaking of the Universal Concrete and Construction Co., Ltd. Registered office: 20, Victoria Street, Westminster.



## SPECIAL LEGAL REPORTS.

**Architect's Implied Final Certificate.***and Newman, Ltd., v. Hamlyn and Co.*

November 13. King's Bench Division. Before Mr. Ridley, Avory.

Action involved the question what constitutes an architect's final certificate was brought by Messrs. Chafin, Hamlyn, Ltd., contractors, of Trundel, Deptford, against Messrs. Hamlyn & Co., general merchants, of Mark Lane, E.C.3., to recover balance of account for construction of a concrete river wall at Upper Globe Wharf, Rotherhithe. Defendants denied that the architect's certificate was given, said penalties in respect of variations from contract which there was "no order in" and counter-claimed £47 5s., for excess of the contracted three guineas for construction at five guineas a

Langdon, K.C., and Mr. Willis for the plaintiffs and Mr. Eustace for the defendants.

Langdon agreed that there was no final certificate in writing, but it was important because on his certificate—which the defendants had since died, was implicit in the effective approval of the architect. The architect was M. Knight, and payments were made on his certificate, and counsel said that here there was an implied certificate by the architect to his

was given in support of counter-claim and to prove that plaintiffs began the work to specified time the plan was withheld.

In his defence it was said that nothing was done by the plaintiffs beginning the work and that Mr. Knight never certified it as completed to his satisfaction. Further alleged that the architect was satisfied.

His lordship, in giving judgment, said correspondence showed no trace of it that the work was not properly done. The correspondence as a whole was consistent with the view that Mr. Knight approved the account. He found the architect did put forward this as accurate and passed it on to the owner, and in that sense certified the work was done completely to his satisfaction. He gave judgment for the plaintiffs for £221 8s. 11d. on the claim and the defendants for ten guineas on counter-claim, costs in either case to

**Architect's Claim for Work Done.***Broad v. Fortescue.*

November 13. King's Bench Division. Before Mr. Ridley, Avory.

As a claim by Mr. Wm. P. Broad, architect, of Cromwell Grove, West London Park, to recover from Mr. N. Fortescue, of Chancery Lane, the sum of £100 6d. for work and services rendered to defendant at his request and about the erection of building on land known as Foundry Wharf, Street, Southwark. In the alternative plaintiff claimed a like sum for his fee as architect in the preparation of plans and specifications and bills of

plaintiff denied liability, but brought in for the sake of peace the sum of £100 and said that sum was sufficient for plaintiff.

Plaintiff's case was that he was verbally instructed by Mr. F. Fortescue, son of defendant, acting as agent for the defendant, to act as architect in the matter and to enter into negotiations with Messrs. Bradshaw Brown and Co., architects and surveyors for Messrs. Sheldon and Co., with regard to the erection of a new building on the site, defendant having agreed to grant a lease of the site to them. Plaintiff said he prepared the plans and submitted them to Messrs. Bradshaw Brown and Co. and also to the defendant, and as they were not disapproved of he took it that they were duly approved. The buildings were to cost £19,000.

Defendant, by his defence, did not admit that the plaintiff was his architect, or the agreement set up by the plaintiff. He denied that the plaintiff prepared plans or specifications at his request. All defendant said he requested the plaintiff to do was to prepare pencil sketches for the warehouse to be erected on the site and to submit them for approval. He complained that the plaintiff had submitted finished drawings and not pencil sketches. Defendant refused to approve the plans, as plaintiff was not employed to make them. He admitted that his son was his agent. Defendant asked for a rescission of the agreement and damages as he had suffered much loss and damage, in that liabilities had been incurred.

Plaintiff, in reply, denied the defendant's allegations.

Mr. Colam, K.C., and Mr. Morton Smith appeared for the plaintiff and Mr. J. B. Matthews, K.C., and Mr. J. B. Eames for the defendant.

Evidence was given on both sides. His lordship, in giving judgment, did not think that the plaintiff was entitled to the whole amount he claimed. He thought plaintiff was entitled, on a quantum meruit, to £301, and he gave judgment for plaintiff for that sum and costs, this amount to include the 100 guineas paid into court by the defendant.

His lordship refused a stay of execution.

**The Approval of Building Plans.***The King v. The Foots Cray U.D.C., ex parte Hoare and Co., Ltd.*

November 19. King's Bench Division. Before Justices Ridley, Avory and Lush.

This was an application for a mandamus to compel the Council to pass certain plans of a building proposed to be erected in their district.

Mr. Jeeves appeared for the Council and Mr. Poyser was on the other side.

Certain plans were submitted for a building to be erected. That building was originally an old building of the shape of an L, the bottom of the L being at right angles to the highway. The whole of the top side of the L had been taken down to the ground level and put back and enlarged. Certain alterations were proposed to be made in the remaining part of the building, and the question that arose was whether the whole of the building was a new building for the purpose of the bye-laws, or whether only such part as was taken down and re-erected became the new building for the purpose of the bye-laws. The builder only submitted plans of the pulled-down portion, and he had since submitted plans for the rest, but it was said they were not in accord with the bye-laws, and they had been disapproved by the Council as not in accord with the bye-laws. The builders contended that the

Council were not entitled to take objection to the plans in question.

For the Council it was urged if the bye-laws were good the Council could take objection to the plans.

The Court refused to grant a mandamus to compel the Council to approve plans, holding that their decision was covered by authority, it having been held that where a person pulled down a part of a building and proceeded to re-erect that part, then the whole of the building, including the part that was pulled down, was by statute deemed to be a new building, and therefore the whole of the building must comply with the plans.

**Important Decision on Engineer's Final Certificate.***Aird v. Bristol Corporation.*

November 16. King's Bench Division. Before Mr. Hall Blyth, as Arbitrator.

Mr. Hall Blyth, who sat as arbitrator, resumed the hearing of the action brought by Messrs. Aird, contractors, against the Bristol Corporation, claiming a large sum in connection with the construction of the Royal Edward Dock at Avonmouth. (See our issue of November 11.)

Mr. Upjohn, K.C., Mr. L. Macassey, K.C., and Mr. G. N. C. Campbell appeared for the contractors, and Mr. Gore Brown, K.C., Mr. T. W. Inskip, K.C., and Mr. W. E. T. Jones for the corporation.

Mr. Upjohn argued upon the point of the claims for rubble filling that the engineer's certificate was not final and that the arbitrator could review the whole of the claim by the plaintiffs.

Mr. Gore Brown contended that the certificate was conclusive, as all the dealings between the parties were straightforward and not inconsistent with the duty of honourable men.

The arbitrator said in this arbitration the plaintiffs claimed £166,687, made up of a number of items, and the first items for consideration were in respect of rubble filling in embankment, in respect of which plaintiffs claimed some £23,000, being payment for 90,713 cubic yards at 5s. 3d. a cubic yard. The foremost point he had to decide was whether the engineer's certificate, as given, was final, and so debarred the plaintiffs proceeding with the arbitration. As far as he could see the verbal evidence given did not carry the matter any further, and his opinion was that the engineer's final certificate was in the ordinary form of certificate and did not purport to be an award. His conclusion was that the engineer was simply acting as engineer and not as arbitrator, and he found as a fact that Mr. Squire did not hear and settle the disputes between the parties as arbitrator under clause 80. The certificates given by him were not final and conclusive, and it was open to him (Mr. Blyth) as arbitrator to consider and decide the claims made by the contractors. He held that it was perfectly clear that the works as carried out were so materially different from the contract drawings that the clause in the contract did not apply. He had no alternative but to hold that the effect of the alleged agreement for variation of the contract for payment for filling up should be made by weight, in accordance with the factors of conversion which were agreed between the parties. He was also of opinion that there was no substantial difference in the stone used from that used in July, 1902. The result was that he found in favour of the plaintiffs in



respect of their claim for £23,000 odd for rubble filling. He would deal with the question of costs at the end of the hearing.

Mr. Upjohn then dealt with the next three items in the plaintiffs' claim, viz., for some £17,000, relating to work done in the spaces left between the monoliths at the entrance piers and elsewhere, for pumping and for timber used in the spaces and left in by direction of the engineer, and further for waste of timber. The engineer had only allowed them 3s. per cubic yard and they claimed 14s., being 11s. in excess of the amount allowed by the engineer.

Mr. Gore Brown said his answer to this part of the case was that nothing was due, but that Mr. Squire had allowed the 3s. as an act of grace. The hearing was adjourned.

#### New Point Under London Building Act.

##### What is "A New Building?"

November 16. Greenwich Police Court. Before Mr. Drummond.

Mr. Drummond gave his considered judgment in a case which raised a new point under the London Building Act. Messrs. Higgs and Hill, Ltd., Crown Works, South Lambeth Road, were summoned by Mr. Baxter Greig, District Surveyor for Deptford, for failing to comply with a notice of irregularity in respect of a building at the junction of Pepys Road and Kitto Road, Hatcham. The irregularity complained of was that the doors did not open outwards.—Mr. Godlee defended.

Mr. Greig said the summons referred to the church of St. Catherine, Hatcham, where a fire took place early in May, 1913. The roof of the nave and chancel were destroyed. Re-building operations were commenced, and it was decided to extend the chancel by 10 ft. 6 in., and to erect additional vestries. To carry this out, the east wall was razed to the ground, leaving an open space with the roof off. He contended that this was "a new building," because what remained of the church was less than one-half of the cubical extent of the building. He understood that the argument on the other side was that the building should be regarded as if the roof was still on, but this could not be so, because in rebuilding the roof might be raised or lowered, or made a flat roof, and this made a great difference in the cubical extent. He argued that, this being a new building, the doors must open outward.

Mr. Godlee argued that the church was not a new building. A building that had been burned or destroyed could not be said to have been "taken down." Only the end wall had been actually taken down.

Mr. Drummond, in delivering judgment, said that it would be going rather too far to say that a building which remained perfectly intact, with its aisles, the walls and the nave and the west wall, and which had only lost its roof and its east wall, was a new building. It was an old building repaired. The summons would therefore be dismissed. His worship added, with regard to the doors opening outwards, that he thought this was a matter for arrangement between the district surveyor and the architects for the parties concerned.

#### Builders and the Moratorium.

At the Liverpool County Court on November 18, Osman Cooban, builders' merchant, sued Messrs. Rathbone and Alexander, builders, of Crosby, for goods sold and delivered. The defendants paid the account and defended the action as to costs. His Honour Judge Shand held that the moratorium prevented the plaintiff,

who was a wholesale merchant, from taking advantage of the proclamation of September 30, which gave the right to retail traders to sue. In his Honour's opinion plaintiff was a wholesale merchant, and the defendants, being builders, were not retail traders. Judgment was therefore given for defendants, with costs.

## NEWS ITEMS.

#### New Empire Theatre, Penge.

Messrs. John Tanner and Son, fibrous plaster specialists, etc., 45, Horseferry Road, Westminster, and 3 and 5, Gill Street, Liverpool, have been entrusted with the fibrous plaster and decorative work at the New Empire Theatre, Penge, under the direction of Mr. W. G. R. Sprague, architect.

#### Employment in the Building Trade.

In the "Board of Trade Labour Gazette," for November, it is shown that employment in building and construction of works during the past month showed an improvement compared with the previous month, and a slight decline on the whole compared with a year ago. The improvement on a month ago was chiefly confined to carpenters, plumbers, navvies, and labourers. In the case of carpenters, the number unemployed was reduced by more than half, large numbers of men being employed upon the erection of huts for the troops, and upon other Government work. Compared with a year ago, carpenters, navvies, and labourers showed an improvement, and other trades a decline. Short time was in operation in many cases, especially in the case of painters.

#### Messrs. Alfred Carter and Co.

With respect to the business so long carried on by the late Mr. Alfred Carter, and lately in conjunction with his son, the late Mr. A. C. Carter (Messrs. Alfred Carter and Co., slate merchants and manufacturers, 33, Norton Street, Liverpool, etc.), the executors of the estate, Messrs. J. H. Burrows, J. J. Gilbertson, and B. L. Meakin, announce that they are carrying the same on under the old style of Messrs. Alfred Carter and Co., and that Mr. Owen Lewis, who has been associated with the concern from its commencement, takes over the management with their full authority. Mr. Lewis will be assisted by the old staff.

#### A New Composite Lining Board.

Just now there is a very large demand for suitable materials for lining the insides of barracks, military huts, hospitals, etc., and Messrs. Wilson and Co., of 79, Queen Street, Cheapside, E.C., who are contractors to the War Office and Admiralty, have opportunely submitted to the War Office samples of their "Wilsasbestile" lining-board, which satisfies the Government requirements, and of which the adoption is approved. A sample of the material which has been sent to us for examination seems to be admirably adapted to its purpose. About one-tenth of an inch thick, it presents on both sides dense and smooth surfaces that give an assurance of perfect cleanliness, non-absorption, and non-conductivity. That these boards are waterproof is self-evident, and obviously, also, they are to a considerable degree fire-resisting. Ease in handling is a further characteristic, for the boards are not only of light weight, but can be easily cut or sawn, and readily adapt themselves to various methods of fixing. They are made 4 ft. wide and of any desired length.

## COMPETITIVE DESIGNS FOR WORKING-CLASS DWELLINGS IN LIVERPOOL.

Designs are invited for dwelling houses for working classes to be erected on the Bone Street area. Premiums of £100 and £25 respectively are offered for designs placed first, second, and third. Mr. Henry Hartley, F.R.I.B.A., City Engineer, will be appointed as assessor.

The dwellings to be erected consist of the following types:—(a) contained dwellings, two-roomed and three-roomed terraced houses. Accommodation must be provided for less than 500 persons, based on a provision of two persons per room, the "room" meaning living-room, bedroom, the scullery not being reckoned as a room for the purpose of this calculation.

Besides the above accommodation, there must be provided a keeper's house and store, together with an open recreation ground, to the extent of 1,400 yards super.

The approximate superficial area of the rooms must be as follows:

#### Tenements.

Living-room, not less than 16 ft. ; first bedroom, 120 super. ft. ; second bedroom, 100 super. ft. ; scullery, 80 super. ft.

#### Self-contained Dwellings.

Living-room, not less than 16 ft. ; first bedroom, second bedroom, bedroom, scullery (with baths), sizes to be suggested by competitive designs.

The dimensions include chimneys in all cases. All rooms must have rate fireplaces and flues. All tenements or self-contained dwellings must have separate w.c. (preferably outside the house), separate scullery, sink, wash boiler, and hot and cold water. There must also be a food locker, and a door to the outer air, and coal storage of suitable dimensions. Provision must be made for the removal of ashes from the floor of the tenements and from the scullery of the self-contained house. The construction of the tenements must be of a fire-proof material, the sub-floors being of concrete or some such material, and as nearly as possible proof as possible.

If, for the purposes of his design, a competitor thinks it is desirable to show the closing of Back Rathbone Street, and of Rathbone Place, the competitor will consider the suggestions, but the case Back Rathbone Street at its present end must be continued at its present position so as to have an outlet into Fiddlers' Green Street. Mount View must not be built.

#### Drawings Required.

A block plan to the same scale as the plan issued with the conditions. A section through each different type of building shown to same scale. Plans, back and front, to a scale of 1/8 in. to 1 ft. Detail sheet showing drainage disposal, portion of front elevation, any special fittings. No perspective drawings will be allowed. A statement giving full particulars and of cost, together with curbing, must accompany the drawings. The designs must be received by the Town Clerk, Municipal Offices, Liverpool, not later than 11.15.8.1915. Copies of the conditions should be obtained from the Clerk, to whom all communications should be addressed. No designs will be received after December 5, 1914.



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## ELECTRICAL NOTES.

*Small Electric Fires.*

The general complaint in regard to electric fires is that they are either too large or too expensive, and it is urged that the makers would meet a demand if they would introduce something small and inexpensive for local heating. Several manufacturers have recently complied with this demand, perhaps rather in the direction of small power than in regard to cheapness, the general idea seeming to be that a strongly constructed metal apparatus is a *sine qua non*—and, of course, this runs into money. Perhaps the nearest to the ideal introduced so far has been put on the market by the Attracta Electrical Co., of 75, Fetter Lane, E.C., in the shape of the "Comfy" Radiator. A curved reflector of polished copper, mounted on wrought-iron supports, and fitted with a similar handle at top, contains a tubular heating element placed horizontally along the centre of the reflector. The heat and light rays are thus concentrated in a small area and reflected outwards, and the effect is to provide an efficient heater for anyone seated at a desk, piano, etc.; when it is not required to heat the air of the whole room. The heating element consists of a tube of silica or quartz wound closely with a coil of iron-free "Tabasco" wire. Adjacent turns of the wire are in contact, but are insulated from one another by a thin layer of oxide. Connection to the electric supply is made by two terminals at the back. The element glows a bright red quickly after being switched on, and a suitable guard is fitted to prevent accidental contact with the source of the heat. The heater, which somewhat resembles

the old-fashioned coal-scuttle, is made in two sizes—namely, for 500 and 1,000 watts, the latter being provided with two heating elements.

*Portable Electric Welding Plant.*

It is somewhat of a jump from domestic heaters to electric welding, but the electric current is employed in both cases except that, for welding, the heat of the electric arc is employed instead of that generated by the passing of current through a resistance wire. Plants of this description are chiefly employed for ship work, but there are many applications for use on land as well. Up to quite recently the question of portability has not received attention, owing to the want of a suitable engine to complete a combined plant. Such a plant has, however, been designed by the Parsons Motor Co., of Southampton, who are making them in two sizes, namely, with 28 and 42 h.p. paraffin engines, to give 16 and 24 kilowatts respectively. The engine is fitted with the Parsons high-speed enclosed sensitive governor, and the whole plant is self-contained in an iron framework. The paraffin is contained in a vessel on the top of the frame, which is mounted with all the necessary electric controlling and measuring apparatus. The engine (which is water cooled) and the dynamo are both mounted on a heavy channel frame connected with the upper frame by six stout columns with eye-bolts suitable for slinging the plant. The plant is started with the usual starting handle at the front end, and on a little petrol to warm up the vaporiser, but a blow lamp can be used instead. Magneto ignition, with Parsons timing drive, is employed, and the valves are of the ordinary poppet type side by side in

each cylinder. The normal speed is 900 revolutions per minute.

*Simplex "Dimmer" Fittings.*

Messrs. Simplex Conduits, Ltd., introduced some two-light pendant brackets, with which is embodied a four-way rotary switch. This is the case of the bracket is sun wall-plate, and in the case of the switch is situated in the centre of the bracket. It is provided with an ornamental knob to correspond with the finish of the fittings. The switch is worked in one direction only, and its four positions are: one light on, both lights on, both dim, and off. The dimming is achieved by connecting both lamps in series of by inserting a resistance, which reduces the current. Of course, the current with two lamps in parallel and the resistance is not actually proportional to the power given with these respective connections, but, nevertheless, there is a good saving compared with the use of a dimmer. These fittings are intended for lighting of corridors, bedrooms, and similar institutions.

*Continuity Grip Fittings.*

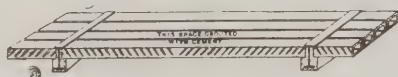
Messrs. Credenda Conduits, Ltd., have recently introduced a "spring" continuity grip which is claimed to be a much shorter time than screw fittings. The grip consists of a helix of steel, widening in diameter at the ends to take the coupling or fitting. The grip is forced home or withdrawn by a turning movement, which temporarily opens the coil. No solder is required to fit up the system.

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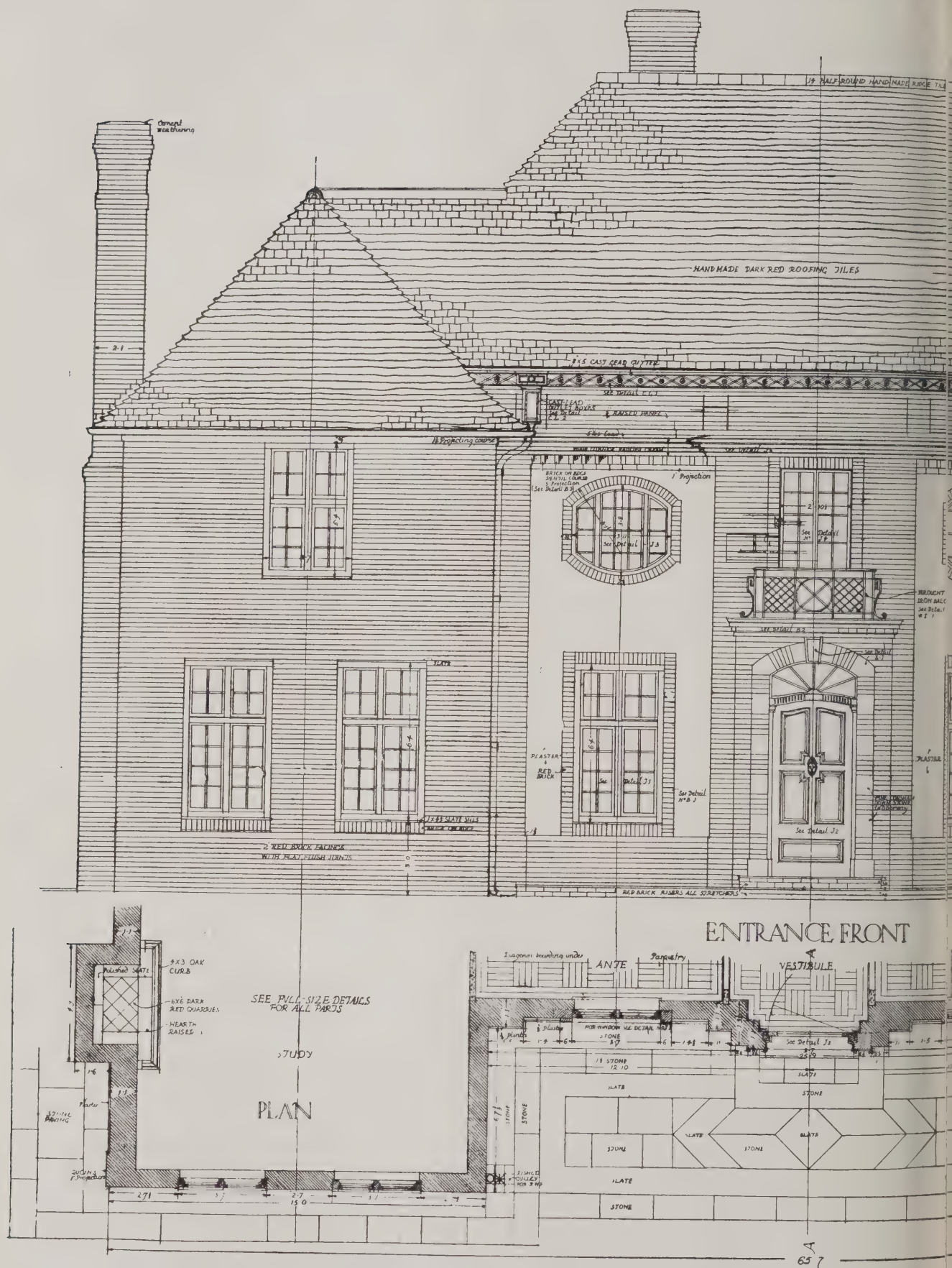
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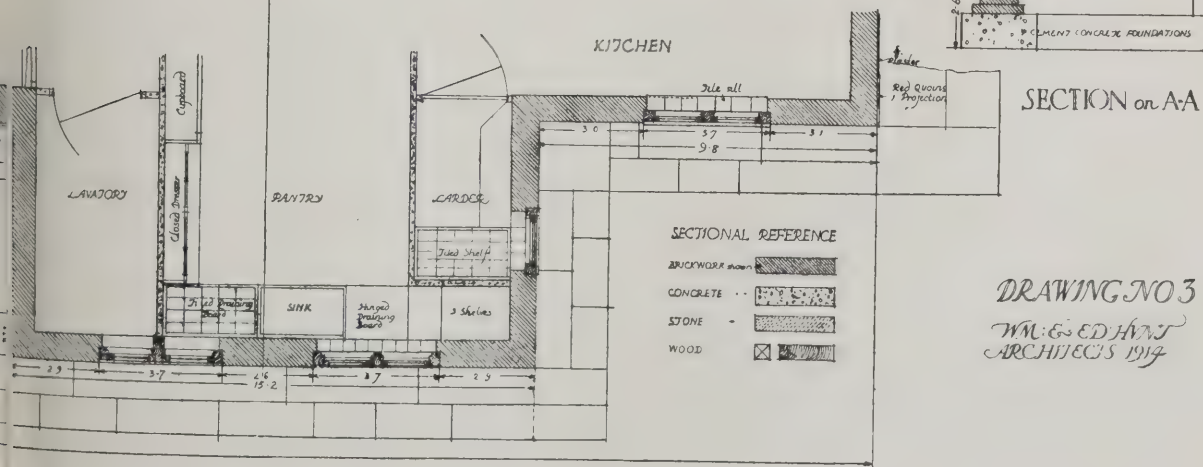


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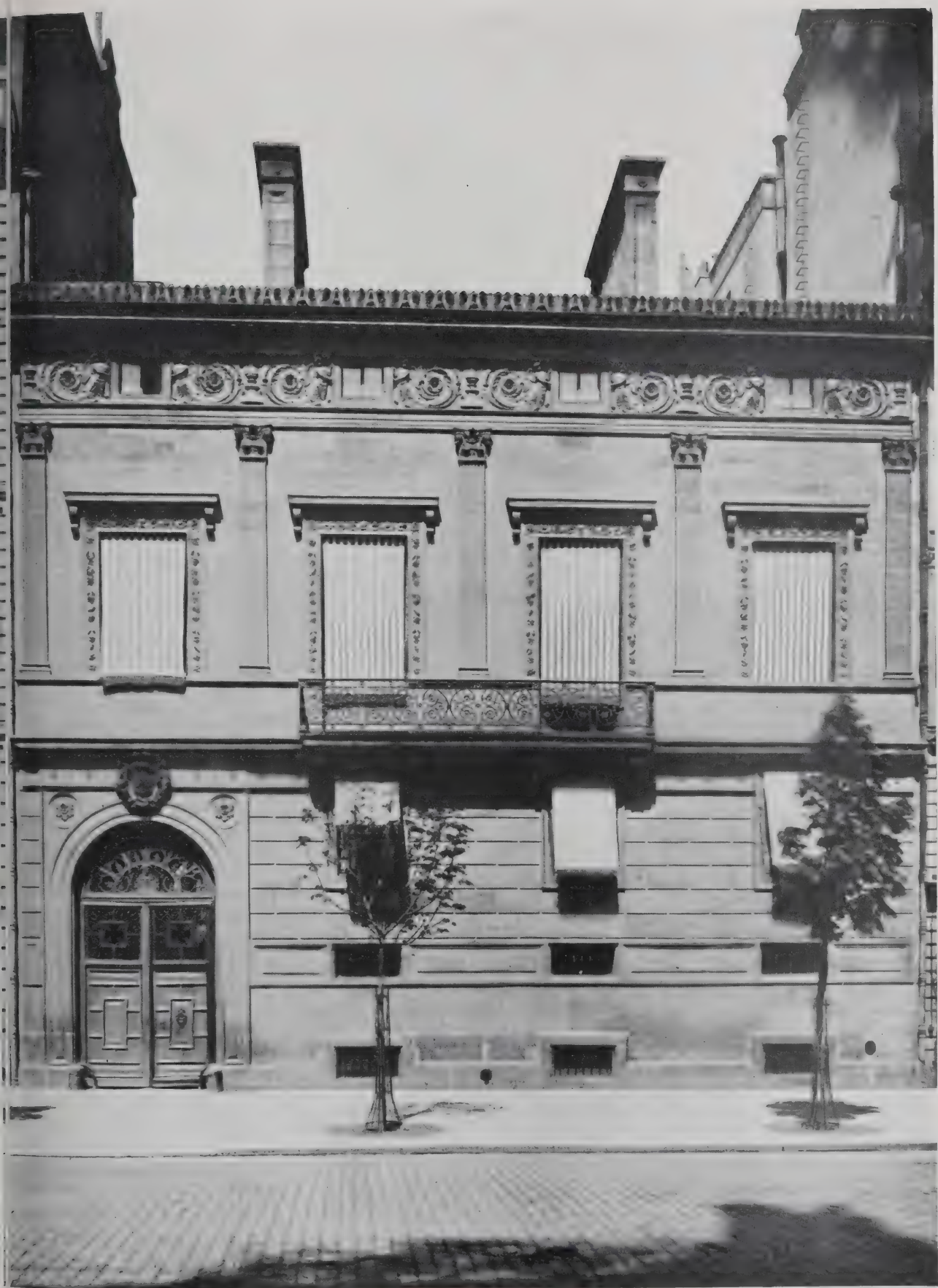


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J. F. DUBAN, ARCHITECT.



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MONUMENTAL ARCHITECTURE. XXXII.—HUSKISSON MONUMENT, ST. JAMES'S CEMETERY, LIVERPOOL.



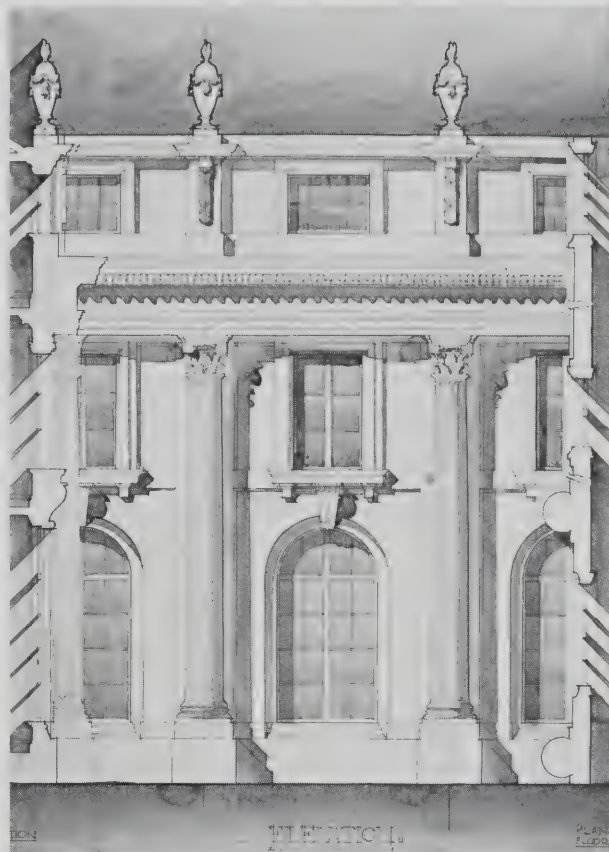
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A BAY OF THE FAÇADE.

By W. H. Golightly.

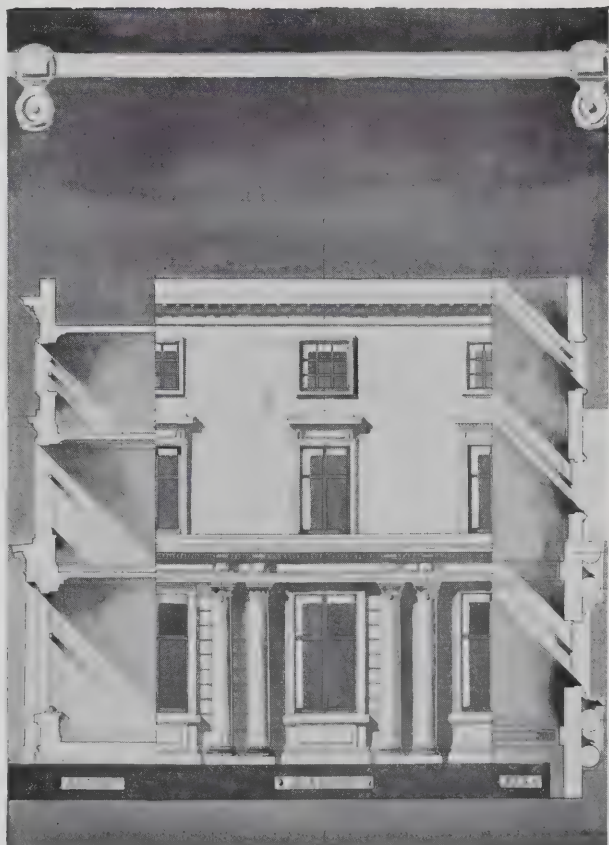


ELEVATION.

By W. H. Golightly.



By C. L. Jones.



By C. L. Jones.

STUDENTS' DRAWINGS. XXXVI.—DESIGNS FOR THE TREATMENT OF ONE BAY OF A FAÇADE.

(ARCHITECTURAL CLASSES, NEWPORT TECHNICAL INSTITUTE.)



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MODERN DOMESTIC ARCHITECTURE. XLVI.—DRAWING-ROOM WINDOW, TUESLEY COURT, GODALMING, SURREY.

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CURRENT ARCHITECTURE. XCIII.—CITY HALL, PERTH.

H. E. CLIFFORD AND LUNAN, ARCHITECTS.



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# THE ARCHITECTS' & BUILDERS' JOURNAL.

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No. 113.



(From Piranesi.)



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## EDITORIAL.

AN opportune paragraph in the "Daily Mirror" bears the heading, "Build Your House Now," and the data given below it warrants the advice. While the war lasts, it is said—perhaps rather daringly—building materials will be cheap. If the writer had said, as he probably means, "comparatively cheap," there would have been no difficulty in agreeing with him; for there can be but little doubt that, as he adds, when the war is over, prices will go up. A good point is made, too, in the observation that work during the war is unlikely to be disturbed by the labour troubles that will afterwards "break loose again"; for the cost of labour is apt to be very sympathetic with any rise in the cost of materials. In the same paragraph it is stated that "of the materials used in building a house only English sheet-lead, iron, and plate-glass have increased in price since July 31." But, as our readers are well aware, the main trouble has been about timber, compared with which the other materials mentioned are of but little importance. Timber, however, has declined considerably from the high prices that ensued immediately upon the war, and has been to a certain extent brought under systematic control. Certainly its omission from the newspaper writer's calculations does not vitiate his deduction—"Build your house now."

Nervous apprehension of instability in prices has been, and still is, a cause of abstention from building. Neither those who commission building work nor those who execute it, care to commit themselves to unlimited liability of expense, and consequently the war has produced more than one instance of builders declining to tender, because they preferred to remain idle rather than to risk loss by working; to lose a job being thought a lesser evil than to lose by it. By adopting this timorous attitude these few over-cautious contractors may have served the excellent purpose of emphasising the need for some firm ground of reassurance; and, with the object of putting the matter on a safer footing, the National Federation of Building Trades Employers, the London Master Builders' Association, and the Institute of Builders, sent a deputation to the R.I.B.A. Nothing has come of it—at least, nothing practical and tangible.

An exhaustive investigation into the circumstances was made by the Practice Standing Committee, in collaboration with the builders, and in the result the Council decline to take action. They may have very good grounds for considering that "each matter as it arises should be dealt with upon its merits by the parties concerned," but the recommendation of a hand-to-mouth or opportunist policy is more cautious than statesmanlike. All that could be reasonably expected

of them was that they should lend the weight of experience, authority, and influence to some selected form of words which would then have been certain of general acceptance; but as they have not seen their way clear to render this easy service, it will be rather surprising if their *non-possumus* attitude does not result in confusion worse confounded by destroying the confidence which they had an excellent opportunity of strengthening. They are unassailable in saying that each case should be dealt with on its merits; but this observation applies with equal force to the general conditions of contract to which long ago the Institute gave its *imprimatur*. Why there should be the smallest hesitation about issuing a war supplement, while similar adaptability is left unexplained in the Council's communication on the subject, and conjecture supplied for no satisfactory reason for the decision.

With Cloth Fair has disappeared the last remnant of London's sixteenth-century streets. True, it was but a fragment, the old gabled houses that have just been demolished being faced or flanked by warehouses which themselves seemed ultra-modern in comparison; and made the old houses appear more quaint and venerable than they were *per se*; but it was a considerable fragment, and enabled one to realise what the narrow and tortuous streets of old London must have looked like. Now nothing but the name remains to remind us of that remarkable Bartholomew Fair which gave Ben Jonson the idea and the title for a play which is invaluable for the light it sheds on the manners, customs, and characters of his day. His shade, I hope, will even now not utterly desert the precincts of St. Bartholomew-the-Great, whose outer walls of perchance have echoed his robustious laugh at the broad jest of gentle Will's.

For the moment, more is to be seen of the outside of St. Bartholomew's than had been possible for three centuries; for the easternmost of the houses demolished abutted against the church, and the demolition has left exposed the exterior bay of the nave, with its walls containing an Early English story window of two lights, the tracery evidently of about the middle of the thirteenth century. It was the least of the encroachments that the fine priory church had suffered, and from which its moderns have been long struggling hard and gallantly to set it free. Among the doughtiest of its champions was Philip Hardwick, the architect, who in 1821 about a much more sympathetic restoration than which had been entrusted to George Dance in 1770.

In Hardwick's day the citizens had no more regard for antiquity than they have shown in the matter



air, for "a powerful junto" was formed parish to sweep away the church as the secular buildings which desecrated excuse being that the choir was damaged and past repair. Hardwick strenuously the junto, and afterwards had the opportunity the arguments to the proof. He made the e; but the encroachments must have sickened e Lady Chapel was filled up with modern s, the north transept was more or less l, and the arch bricked up, while the south a ruin without a roof, was walled off from the d used as a burial ground. The eastern side ister was all that remained of the quadrangle, turned to account as a "comfortable eight- le" for horses. The site of the north cloister pped by a blacksmith's forge, a public-house, in private offices; the south and west being d with storerooms and coach-houses. Of the ouse the remaining walls were "no higher ado," and under them the timber was stored tment in the sawpit of the enclosure. The e to the south of the Chapter-house had been sed, and the crypt beneath it bricked off into for stores, with a common thoroughfare open them. A fringe factory extended westwards l triforium, a substantial iron bar being carried the curve above the altar to strengthen the walls.

3 the fringe factory was bought out for A restoration fund of £28,000 was collected, essor Hayter Lewis and Mr. Slater were the e; for the extensive restorations that ensued, clang of the blacksmith's hammer no longer e the devotions of the weekday worshippers. 87 to 1895 the work of reclamation went yn; but, as Mr. George Worley records in his g monograph on the church, the crowning the reconstruction of the Lady Chapel, which mpleted until 1896. This part of the work irably done by Sir Aston Webb, who, after tudent investigation, restored the fabric as a possible to its original state.

presidential address to the Concrete Institute vember 19, Professor Henry Adams touched n a large number and variety of topics go theory, practice, and professional polity. ly it was impossible to dig very deeply over so ld, and it was inevitable that so diffuse an should be richer in suggestion than in resolu- vertheless, in the course of his extensive rofessor Adams supplied, *passim*, a good deal al information, and threw off a sagacious ommentary on his too-abundant data; but hiefly miss from the address is some leading thesis evolved from or illustrated by the mass s. As it is, we get the stuff in separate blocks l moulded rather than in monolithic form. no question as to the excellent quality of the a, but one would have preferred to see them d into some more definite design.

ument for the closer association of architect tural engineer remains inchoate in Professor s' address, and it is not for us to attempt to pt. Properly worked out, it might very use- e formed the substantive element of the s for the problem thus casually introduced is sooner or later, should be seriously and ally considered, if the only result were to set e doubts so frequently arising as to whether e present method—in which, roughly speak- architect outlines his requirements and the is do the rest—is that which, on the whole,

yields the greatest degree of economy and efficiency. Professor Adams is of opinion that collaboration between architect and structural engineer, producing a design upon which contractors may tender as a common basis, would be more satisfactory; but we very much doubt whether, under existing conditions, this method offers any substantial advantages to compensate for the more intimate knowledge of his own system possessed by the specialist and his highly organised staff. On the whole, the prevalent practice works so well that any attempt to supersede it by something that merely wears the appearance of being based on a broader theory stands but little chance of success. It will be soon enough to make such experiments when the reinforced-concrete specialist shows signs of weakening on his present almost unassailable position, which has been so well earned that it is likely to be long maintained.

Following upon a report by "a well-known trade union representative" to the War Emergency Workers' National Committee, there has been a deluge of more or less irresponsible discussion of the prices charged and the work executed in connection with the thousands of huts that have been erected in various parts of the kingdom for Kitchener's Army. As to price, the report estimates that the cost of a single hut works out at £85 10s., whereas it is alleged the prices charged for complete huts range from £130 to £150. Since, as every architect and builder knows, estimates that are made in cold and platonic tendering in the mere course of business have often shown even greater discrepancies, it is simply impossible to attach any very serious importance to an estimate that seems to have been calculated with the object of making-out a case. Allegations with respect to materials and construction must also be received with caution pending the stringent investigation which, in the interests of all concerned, ought to be immediately instituted. It could not have become necessary if the War Office had promptly accepted the R.I.B.A. offer of assistance; and it cannot now be satisfactorily carried out without the aid of the Architects' War Committee, to whom Government should have immediate recourse.

Of the many things that one has to suffer with a smile during war-time, there are some few that seem to be entirely unnecessary, and that might well be spared us. One of these is the pasting-up on every available space of garish exhortations to "Join the Army To-day," and so forth. On the forefront of a taxi they merely emphasise emergency, and at the rear thereof they may serve for a consoling reminder that all the danger and discomfort are not at the Front. Swathing the crude red of the street pillar-box like a bandage round a wounded soldier, they do but symbolise the horrors of war, and hardly justify the sarcasm that the militant typography of the bill was an example of the "art before letters," which was once the subject of a heated controversy of which one forgets the issue but remembers the catchphrase.

But stuck up on the façade of a Government building that one at last acknowledges to have been once noble, these posters insinuate a momentary doubt as to whether, after all, we can afford to throw stones at the Huns. Certainly this is no time for squeamishness, and one is willing to swallow a good deal rather than to appear, even for a single moment or upon a single issue, out of sympathy with those who are straining every nerve in the interests of the country. Yet this little matter of bill-sticking could have been done with equal—nay, with better—effect, and without disfigurement to Government buildings, town halls, chapels, and churches. As a rule, churches and chapels have



decent notice boards, as well as that "decent bason" in which, in accordance with the rubric, the alms should be collected; but we have come across at least one instance in which the military posters have been pasted over the masonry! Surely "these things ought not so to be." If we "fight like gentlemen," we ought also to be able to conduct our advertising campaign with some similar regard for urbanity and amenity.

### HERE AND THERE.

LAST week we had a little of that delightfully abusive critic, Mr. John T. Emmett, a Quarterly Reviewer of the 'seventies. This week the case against architects must be completed, and a glimpse given of the only means whereby architecture can be saved. Certainly no hope is forthcoming from the diletantti. Architects themselves would readily recognise that, but they could hardly express themselves so forcibly as our author, who says: "In England Vanbrugh and Lord Burlington have made us see how quickly men of literary culture, and of noble rank, could master the designing knack, and then provide new luxuries of architectural magnificence to put their wondering and confiding friends on the high road to ruin. Blenheim House is critically known as 'picturesque,' but it is a scene rather than a dwelling; there may be a house embedded in the stonework, but the real effect, which is geological rather than architectural, more suggestive of a quarry than of a palace or a home, is due entirely to non-essentials, to the mass of superfluous material symmetrically disposed, and yet altogether hideous and unseemly; in fact, a sort of architectural elephantiasis. Burlington House, though exotic in style, was a very respectable and praiseworthy effort; and the colonnade was no doubt a grateful memento of the Italian tour."

Of the viciousness of the architectural profession, as surveyed by John T. Emmett, space does not permit me to give any comprehensive view, but the following will serve. "All the world," he says, "is not perfect; motives are mixed, and help is necessary even for the virtuous. A gold medal, given by Her Majesty, is on occasion offered by the Institute to some reputed architect or connoisseur. The effect, it seems, is nugatory. When the medal is declined no harm is done, and when it is accepted no great benefit to anyone appears to have resulted. If another principle of distribution were adopted, and the medal were presented to the architect who had *declined* the greatest number of commissions, good might come of it. We venture to commend this suggestion to the Fellows and Professors at the Institute. Most men are anxious for distinction; here might be an opportunity and hope for some; the competition would not probably be too severe. . . . There used to be a story of an 'architect of eminence' whose bill, a startling one, was criticised by a Right Reverend Father. The divine remarked that the account was equal to a curate's yearly salary. 'That,' said the architect, 'is true enough; but then, my lord, you must remember that among architects I am a bishop!' It was a clever answer, but not true; the man was but a pluralist, with architectural clerics, curates, one might say, in charge at all his works; and it was said that he, like others similarly known to Fame, gained his chief introduction to that prating damsel through the help of an unrecognised assistant draughtsman."

The hope of everything is, we are assured, in the obliteration of the "architect," a paper-designing person, and the elevation of the workman. I do not see how it is to be done, but John T. Emmett will tell the

gentle reader: "The reason for all this aberration of decline is easily explained. The work of design is called, being in comparatively few hands, the great loss of artistic power which would be saved properly employed were each building designed by its own working men. Builders are of the nation's poets; they are born, not made; and it is therefore a policy to secure and utilise as large a number of such and poetic minds as can be possibly employed. To ignore these, and to concentrate the work in the hands of a comparatively few, is an abandoned folly, maintained on its mere statement; it prevents the spread of intelligence and cultivation among the working builders, and from them the masses of the people it breeds a class of 'architects,' whose production is a curse to the nation, and, in various degrees of ugliness, a travesty of art." The last sentence is admirable and dispels any notion that an "architect" can have a scrap of merit. This is indeed a caustic criticism above all things he is lively and entertaining, and in a dull world we should not be ungrateful for such swingeing.

Of his criticisms of contemporary buildings, I forbids anything but a brief notice here. Still a little that is given will indicate how the thing is to be done. Take, for instance, his estimate of the Midland Grand Hotel at St. Pancras. About this says John T. Emmett, there are not two opinions. "Here the 'public taste' has been exactly suited to every kind of architectural decoration has been thoroughly common and unclean; that building, inside and out, is covered with ornament, and the polished marble enough to furnish a cathedral. Every parapet of the cab road is panelled and perforated at a cost that would have supplied foot-warmers for trains for years to come. This monument of competition is a fair specimen of the result of competition among architects for the approval of judges who know to be incompetent. . . . In the success of design, at any rate, the noble art of building has been treated as a mere trade advertisement; showy, expensive, it will, for the present, be a striking contrast with its adjoining neighbour. The Great Northern terminus is not graceful, but it is simple, characteristic and true, and no one would mistake its nature or use. The Midland front is inconsistent in its detail and meretricious in detail—a piece of commercial manufacture that makes the Great Northern appear by contrast almost charming. There is no relief or quiet in any part of the work; the eye is constantly troubled and tormented, and the mechanical patterns follow one another with such rapidity that perseverance that the mind becomes irritated where it ought to be gratified, and goaded to criticism where it should be led calmly to approve. There is a complete travesty of noble associations, and no slightest care to save these from a sordid contact. Elaboration that might be suitable for a chapter in a cathedral choir is used to advertise a terrestrial hotel; and the architect is thus a mere expounder of the company's head cook in catering for the low enjoyments of the travelling crowd. . . . consistent, the directors should not confine their expression of artistic feeling to their station building only; all their porters might be dressed as javelin-bearers, their guards as Beefeaters, and their stationmaster might assume the picturesque attire of Garter-knights; their carriages might be copied from the Mayor's Show, and even their large locomotive might imitate the Gothic window near their terminus at York. These things, however, will eventually die, but the water tank is moulded in the Gothic style." John T. Emmett, indeed, was no rapier man; he liked a heavy club, and flattened out everybody and everything belonging to the pernicious "profession" of "architect."

UBIQ.



## THE PLATES

*New Choir Stalls and Organ Case, Dunblane Cathedral.*

The choir of Dunblane Cathedral Sir Robert Lorimer has recently carried out some work which reaches the same high standard as that in the Thistle Chapel, Edinburgh. The new work comprises stalls, organ case, and a screen at the east end, designed by Mr. John Graham Stewart. The two rows of stalls extend eastward from the chancel arch for three bays—a distance of about 40 ft.—and provide accommodation for a choir of about sixty. The organ case is 30 ft. in height. The screen against the east wall is a memorial to Robert Leighton, Bishop of Dunblane, 1660-71; the lower portion consists of solid panelling, while above are panels carved with reliefs representing the Seven Acts of Mercy and the Last Judgement, the whole being crowned by canopies and gables. To quote a writer in the "Glasgow Herald": "The aim of Sir Robert Lorimer in designing this screen, the organ case, and the stalls has undoubtedly been significantly and beautifully to set in terms of the material a paean of thanksgiving to the divinely ensouled. He and the imaginative carvers who, with true impulse, wrought the oak so fittingly have called to their aid not Nature and the animal kingdom only but the angelic host. And they have done this for the most part quite naturally, without any parade of technical skill or of inventive ingenuity. . . . It may here be noted that the oak throughout has been treated in the same way as that of the carved work of the Thistle Chapel. Thus, the effect of the somewhat heavy and assertive effect of the oak, the tone of the wood is cool and silvery, though it had been subjected to the refining effect of light. The delightful tone and markings of the oak count for a great deal in the effect." Messrs. James & Co. of Edinburgh, executed the carving. The result is quite alike to the talent of the architect and the skill of the craftsmen.

*The Uffizi Palace, Florence.*

Readers will notice that we commence this week a series of illustrations of Florentine Palaces. These, we think, will be appreciated especially as offering useful suggestions for the design of large modern palaces. We do not propose to give any extended description of the palaces illustrated, and will, therefore, merely state that the Uffizi was built in the last quarter of the sixteenth century. It is a public picture gallery.

*House on the Parade, Weymouth.*

South Coast towns offer many examples of the house-fronts of the late Georgian period, and it was a time when the watering-places were carried greatly into fashion. The example from Weymouth is particularly pleasing, the great bow window carried up to the roof and supported by columns from the pavement being in excellent proportion, and there is a refinement in the design of the pediment, the band of ornament at top-floor level, and the cornice, which is worthy of close study.

*Labourers' Cottages at Tadworth.*

These cottages are of interest as showing what is possible in war time and under adverse conditions when locality and prices are concerned. They are erected for Sir George Riddell by Messrs. Ross & Smith, of Tadworth, from designs by Mr. C. H. B. Clow, F.R.I.B.A., of Westminster. The contract was £1,478 for the seven, or just over £210 per cottage (this includes cost of drains and of paving in rear, but not fences, nor water-closets and connection of water to same). The contents are 67,709 cubic ft., the price working out at just over 5d. per cubic ft. Tadworth is not a cheap place for building; a residential district built around the golf links, and

does not supply itself with lime, bricks, or building materials: and its position on the summit of the Downs, forming part of the North Downs running from Redhill to Box Hill, means much expense in carting. A note of the cost of labour and materials is appended. The site is, roughly, like a leg of mutton in shape, and the cottages, planned in L form, are placed so that the south sun shines directly into the re-entering angle. A flower garden will be formed at the front, while at the rear are the yards for drying. Land for growing vegetables is available in the allotments. The accommodation is shown on the plans, the sizes of rooms following the recommendations of the Departmental Committee appointed by Mr. Runciman in February, 1912, though the rooms to the angle cottages are larger than this. The roof has the same span throughout, and is to be covered with 14 in. by 7 in. grey Portmadoc slating (the scale of the small slates is more satisfactory than the usual "Countess" size, which is generally specified more from force of habit than anything else). An absolutely plain cornice protects the walls, which are being built with brindled grey stocks. The windows are fitted with 1½ in. deal casements in solid frames. The following are the local labour prices: Carpenters, 10d.; bricklayers, 9½d.; plasterers, 10d.; labourers, 6½d. per hour. Sand, 5s. 6d. per yard delivered. Bricks—walling, 31s.; facings, 35s. per 1,000.

*French Empire Chair.*

This may be termed an everyday model, inasmuch as its lines are quite simple and the ornamentation is very restricted.

## CORRESPONDENCE.

*The Editors disclaim all responsibility for the statements made or opinions expressed by correspondents, who are asked to be brief, and to write on one side only of the paper. Every communication must bear the name and address of the sender.*

*The Scott Monuments.*

To the Editors of THE ARCHITECTS' AND BUILDERS' JOURNAL.

SIRS,—I am rather surprised to read in your issue of November 8 that "if one had to make a choice between them we think it would be in favour of the Scott Monument in Glasgow." Will you devote a score of lines some time to telling us why?

A monument in massive ordered Classic to Johnson, or Burke, or Milton, I can conceive of; but to claim for it, as against Gothic, a superior ability to symbolise the genius that gave us Madge Wildfire and Effie Deans, Dominie Sampson and Bailie Nicol Jarvie, Dugald Dalgetty and Edie Ochiltree, and all the other weird, romantic, mirthful creatures of the Waverley Novels, to say nothing of the ordered disorder of the poems, is, to my mind, beyond conception.

*De gustibus, etc.*, possibly; nevertheless, I am anxious to hear the other side.

Of the relative artistic excellences of the monuments there may, possibly, be no two opinions, but that is "a flower of the spring."

KOKO.

Preston.

[The comment on the Scott monuments in Glasgow and in Edinburgh was made purely from the architectural point of view; regarded in that aspect we contend that the classical monument in George Square, Glasgow, is superior to the Gothic monument in Princes Street, Edinburgh. Even from the point of view of romantic antiquarianism we cannot agree that the fretted and rather fretful pile that towers above Sir Walter is redolent of the spirit of the Waverley Novels. Our correspondent, we fear, is seeking to translate humanity in terms of architecture. The attempt has been made before, especially by the enthusiasts of the Gothic Revival, but it never succeeds.—EDS. A. AND B.J.]



## A CIVIC CENTRE FOR SAN FRANCISCO.

SAN FRANCISCO is forming a civic centre, and work on the various buildings on the area is being rapidly pushed forward, so as to be complete in time for next year's Panama-Pacific International Exposition. The accompanying illustrations show the adopted scheme and the area out of which it is being formed. In March, 1912, after the scheme had been settled, a bond issue of £1,750,000 was authorised by popular ballot for carrying out the construction. At that time the city owned only the shaded triangle shown in the lower illustration, and it was necessary not only to acquire additional land and revise the street plan, but also to demolish a number of structures which had been built on the area after the great fire that occurred some years ago.

Work was commenced in April, 1913, when a start was made with the City Hall. Soon afterwards work was started on the Exposition Auditorium, and at the present time plans are nearly completed for the Library. It was at first intended to place an Opera House in the space opposite the Library, but this plan was abandoned, and the space is now unassigned.

The California Legislature recently authorised the expenditure of £200,000 on a State building across the plaza from the Auditorium.

The central feature of the civic centre will be the new City Hall, which is 300 ft. by 400 ft. on plan, and covers, with its stairways and approaches, two full city squares. It is surmounted by a dome 110 ft. in diameter, the summit of which is 300 ft. above street level, or 10 ft. higher than the Capitol dome at Washington. Inside the building beneath the dome is a large rotunda finished in marble, running through the four storeys of the building. White California granite is used for the exterior face. Both the east and the west façades are axial with the approach thoroughfares. These façades are composed of a central pediment, with a large Doric Order, flanked with a smaller Doric colonnade. The façade is built up from this

smaller Order to the large pediment, which forms the base for the central dome. By this means the uniformity of the façade is kept down to such a scale as is practical for the utilitarian requirements of windows and of storeys, while the central motive indicates the presence of larger rooms, such as the Council Chamber and the Library.

The Auditorium is being constructed at a cost of about £260,000 as a permanent monument of the Exposition. Although planned primarily to accommodate conventions and other similar gatherings, provision is made for converting the main hall into a ballroom, or even into a stadium for horse shows or circus purposes. To accomplish this, only 5,000 seats are planned on the main floor, an equal number being arranged in a large balcony. Twenty-five entrances are provided, and for emergency exit there are four one double doors and twelve wide stairways to the balcony.

The building itself is 265 ft. by 402 ft. on plan, and consists of the main hall, flanked on either side by wings to be used for offices, committee rooms, exhibits. The main hall is octagonal, 200 ft. in diameter, and its gallery projects on three sides. Light is admitted through an octagonal glass dome, 100 ft. high to the centre. This dome is not carried by the frame of the building, but rests on a circular I-beam making a ring 200 ft. in diameter, and supported by eight main columns. The columns are encased so as to harmonise with the interior finishing, but the work of the dome is left exposed and decorated.

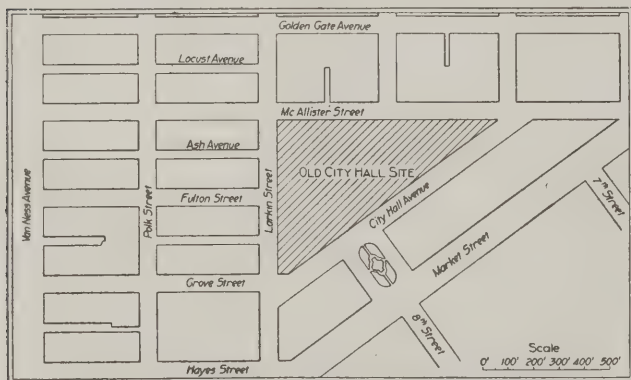
The plans for the civic centre were developed under the direction of Messrs. J. G. Howard, F. H. Merrett, and John Reid, jun., who acted as a board of consulting architects for the city and also designed the Auditorium. Messrs. Bakewell and Brown, of San Francisco, are the architects for the City Hall.

## ARCHITECTS' REGISTRATION IN AUSTRALIA AND AMERICA.

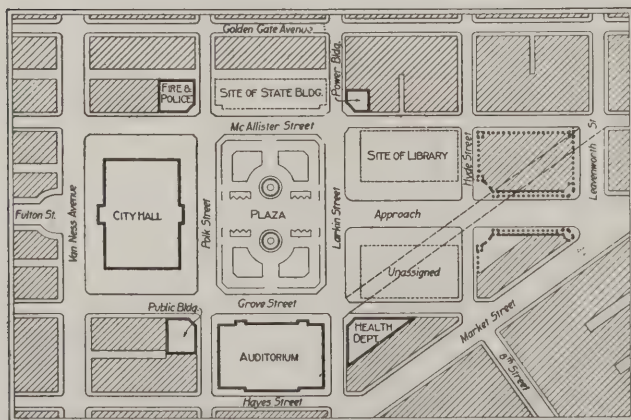
FROM the "Salon," the official journal of Australian architects, we take the following, which appears over the initials "P. C." :—

The Institutes throughout the Commonwealth are at last making efforts towards the registration of the profession in a singularly whole-hearted manner. It has been said that every Member of Parliament has some sort of a Land Bill in his pocket, and so every Institute has its Registration Bill—and, wonderful as it may seem, they are taking their Bills seriously. In Queensland, while the Bill has not yet reached the dignity of being "laid on the Parliamentary table," the matter has been brought under the notice of the Minister. The Under-Secretary of the Public Works Department (Mr. A. B. Brady, A.M.I.C.E.), to whom the matter has been referred, has been entirely sympathetic, and we are hoping shortly to attain the dignity of registration. The Queensland Bill has been more or less founded on the Bill granted in South Africa, a thoroughly workable, comprehensive, satisfactory measure. The Bill under consideration has the distinct advantage of non-infringement of interests in any section of the community.

The point has been raised as to the registration of the outset of men who have not perhaps the necessary qualifications to pass such an examination as will eventually be prescribed for registered practitioners. Under no circumstances could anybody be debarred from making application for membership, but applicants would be required to produce some evidence of architectural training or experience. The builder who prepares his own plans, and who considers himself as good as any architect, would be eligible for registration, the engineer who perhaps has designed a power station or a public convenience, and the humble



OLD CITY HALL AREA.



AREA AS REPLANNED.



gns "modern" shop windows and show-cases are eligible for registration. But would they

We think not. Were they to register the s of the Bill must leave them two alternatives withdrawal from the profession, or the giving ir trade relations—and there is no doubt they oose the former alternative.

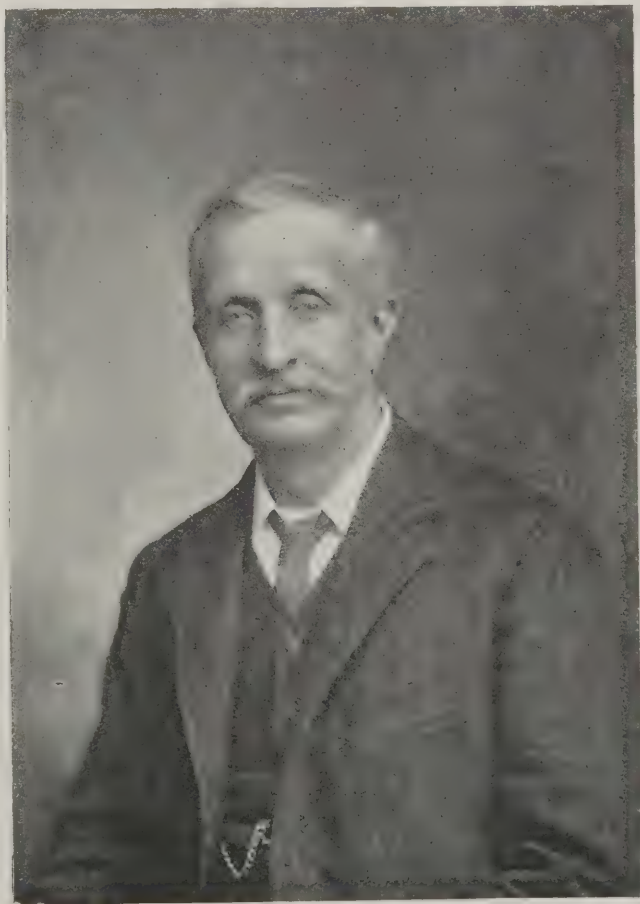
ill as the Queensland Institute proposes is or the purpose of hall-marking the qualified . There is no idea of making the profession profession, such as is the profession of Law. ve particularly desire it, but we do not think it easonable that the State should place the seal val on the qualified architect as against the ed. We have in the last decade seen our : architecture pass into the hands of the jerry- and the public health and comfort have been red thereby. The standard of design and tion has fallen lamentably, and now we are in ppy position of building our houses on about e lines as the boxes in which we export our

current attitude towards architects' registra- New York may be gauged from the following t in "The American Architect" for Novem- It appears unfortunate in the extreme that o place upon the Statute books of this State uate law requiring those desirous of entering ctice of architecture to give satisfactory : of competency have thus far been unavailing. y architects who have completed as long, as and as expensive courses of training, and mistakes are as costly and serious to the health ty of society as are those of doctors and should not be accorded and be required to similar measures of protection, is difficult to nd. The purpose of an architect's licence law s has been frequently suggested, to surround lge in the entrance to the profession with sary and unnatural difficulties, but simply to nditions that will ensure proper training and ice of candidates, and thus prevent the practice tecture from falling into disrepute, and at the me ensure the welfare of the public. The of men in this State who are posing as archi- thout proper qualifications is unquestionably ng yearly, and the same is probably true of ates in which there are no licence laws. The n is one demanding concerted and vigorous n the part of architects, for unfortunately the s not alive to the danger that threatens it at the of incompetent practitioners. The work of nment must be done by the profession, h the benefits will be shared by all. An early campaign in which all architects can consi- pin, and a prompt opening of hostilities against uences that have prevented the success of s efforts, should be the objective of members profession in all States where no licence laws orce.

#### LATE MR. STOCKDALE HARRISON, F.R.I.B.A.

r issue for November 18 we published a brief e announcing the death of Mr. Stockdale rison, sen., of Leicester, and giving a few ars of his career. In connection with the accom- g portrait the following additional particu- ll be of interest. Mr. Harrison was born in er in 1846, and in 1862 was articled to the late nes Bird of that town. In 1868 he went to Lon- id was for two years under Mr. Somers Clark. ing to Leicester in 1870, he started practice enously with his old schoolfellow, the late

Mr. Isaac Barradale. Both met with success in their profession, and each left his mark on the architecture of the town. Mr. Harrison was perhaps best known by his domestic and commercial work, and many private houses and important factories testify to his soundness and ability in these important spheres. The factories of Messrs. Hart and Levy, N. Corah and Sons, Thomas Brown and Co., and the British United Shoe Machinery Co. were designed by him, and many people in the town and county went to Mr. Harrison with confidence when they wished to build a house for themselves. He designed several churches, including St. Thomas's, Wigston, and St. Stephen's and St. Guthlac's in Leicester, and carried out successfully various ecclesiastical restorations. He was also entrusted with the erection of the Leicester Working Men's College, the Vestry Street Baths for the Corporation of Leicester, Messrs. Barclay and Co.'s Banks in Leicester and Peterborough, and the recently built De Montfort Hall, Leicester. In association with Mr. Howard H. Thomson he carried out the Usher Hall, Edinburgh, his most important work. He was a lifelong friend of Mr. John Fulleylove, the distinguished painter, who was likewise a native of Leicester, and a fellow pupil at Mill Hill House School under Mr. Highton, where so many local worthies have received their education. He took an enlightened interest in all matters artistic, and was helpful in many directions that made for the good of the town. The large and representative gathering that assembled in St. Martin's Church to pay their last tribute of respect indicated the esteem in which he was held alike by his neighbours and his professional brethren. Mr. Harrison became an Associate of the Institute in 1882, and was made a Fellow in 1890. He left a widow, three sons, and two daughters. His sons, Messrs. Stockdale and Shirley Harrison, both Associates of the Institute, and for some years past in partnership with their father, are continuing the practice.



THE LATE MR. STOCKDALE HARRISON, F.R.I.B.A.



# CONCRETE AND STEEL SECTION.

(MONTHLY.)

## L.C.C. COLUMN FORMULÆ.

A correspondent raises an interesting point with regard to the formula used in calculating the strength of steel stanchions in accordance with the London building regulations. He cites the formula below as the one employed, but this, he says, would appear to give results that are much too low.

Safe stress per sq. inch of section

$$= 6.5 - \frac{1}{40r} \text{ with both ends fixed}$$

$$= 5.5 - \frac{1}{40r} \text{ with one end fixed}$$

Result in tons:

$$= 4.5 - \frac{1}{40r} \text{ with both ends round.}$$

l = length in inches.

r = radius of gyration.

We submitted the matter to one of our expert contributors, Mr. Ewart S. Andrews, who says in reply:—

The formulæ given by B. R. G. for the safe stresses in steel pillars under the L.C.C. Building Act 1909 Amendment are correct as far as they go, but they require modification. The complete formulæ are given as follows in very handy form in Messrs. Redpath Brown's Handbook of Structural Steelwork (1913):—

| Ratio of Length to Least Radius of Gyration. | Working Stress in Tons per square inch of Section.        | Condition of Ends.               |
|----------------------------------------------|-----------------------------------------------------------|----------------------------------|
| 0 — 100                                      | $4.5 - \frac{1}{40k}$                                     | Hinged ends                      |
| 100 — 140                                    | $4.5 - \left( \frac{1}{2.5 + \frac{k}{20}} - 100 \right)$ |                                  |
| 0 — 140                                      | $5.5 - \frac{1}{40k}$                                     | one end hinged and one end fixed |
| 140 — 180                                    | $5.5 - \left( \frac{1}{3.5 + \frac{k}{20}} - 140 \right)$ |                                  |
| 0 — 160                                      | $6.5 - \frac{1}{40k}$                                     | Both ends fixed                  |
| 160 — 210                                    | $6.5 - \left( \frac{1}{4.0 + \frac{k}{20}} - 160 \right)$ |                                  |

l = height of pillar in inches.  
k = least radius of gyration in inches.  
These L.C.C. values undoubtedly are low, particularly for the small values of  $\frac{l}{k}$  with "hinged ends" and "one end fixed and one end hinged." One of the most reliable formulæ is Fidler's, values of the safe working stresses for which are given in the accompanying table, together with the values, by the L.C.C. formulæ for the various values of the "slenderness ratio"  $\frac{l}{k}$ . In the third column are given the correcting factors by which the safe loads or stresses according to the Fidler formula have to be multiplied to give the L.C.C.

values, or conversely the factors by which the L.C.C. values have to be divided to give the Fidler values.

An examination of these tables shows that the L.C.C. values are very low, and that the authorities have sacrificed scientific accuracy and real economy for simplicity. The L.C.C. values are certainly very convenient for use, because equal increases in length give equal changes in the safe stress.

EWART S. ANDREWS.

## DUSTLESS CONCRETE FLOORS.

Why is it (says the "Engineering Record") that in two concrete buildings apparently constructed under identical conditions, built by contractors of equal intelligence and integrity, from concrete composed of similar aggregates and the same brand of Portland cement, the floors in one will turn out hard, firm, and resistant to abrasion, while in the other ordinary usage will result in dusting?

The fact that numerous dustless concrete floors have been laid seems to indicate that the trouble must lie in the selection, proportioning, mixing, placing, or finishing

of the material. The procedure and portions described below have given excellent results.

For first-class work a rich mixture, desirable, say, 1:1:1, in which the aggregate consists of granite, or other stone, screenings graded from  $\frac{1}{4}$  in. to the finest, and crushed stone of quality passing a  $\frac{3}{4}$ -in. ring and retained on a screen having  $\frac{1}{4}$ -in. mesh. The trowelling and finishing of the floor face should be completed within  $2\frac{1}{2}$  from the time the materials leave the mixer. This necessitates mixing material to such consistency that mortar has to be scraped from the barrows, and will hardly flatten out dumped upon the floor, yet wet enough so that it can be "struck off" with difficulty when spread out with sh. The floor usually is in a condition trowelled for the last time within an hour and a half or two hours after the final course has been mixed. When sufficiently hardened to prevent pitting floor should be sprinkled with water 2 in. of sawdust can be thrown on the face without injury. The sawdust should be thoroughly wetted and kept moist by sprinkling for a period of two weeks.

| Slenderness ratio<br>$\frac{l}{k}$ | Hinged Ends.   |        |                   | One end fixed.<br>One end hinged. |        |                   | Fixed Ends.    |        |                   |
|------------------------------------|----------------|--------|-------------------|-----------------------------------|--------|-------------------|----------------|--------|-------------------|
|                                    | Working Stress |        | Correcting Factor | Working Stress                    |        | Correcting Factor | Working Stress |        | Correcting Factor |
|                                    | L.C.C.         | Fidler |                   | L.C.C.                            | Fidler |                   | L.C.C.         | Fidler |                   |
| 20                                 | 4.5            | 6.27   | .638              | 5.0                               | 6.35   | .788              | 6.0            | 6.42   | .93               |
| 25                                 | 3.875          | 6.13   | .632              | 4.875                             | 6.25   | .78               | 5.875          | 6.37   | .92               |
| 30                                 | 3.75           | 5.97   | .628              | 4.75                              | 6.14   | .775              | 5.75           | 6.31   | .91               |
| 35                                 | 3.625          | 5.77   | .629              | 4.625                             | 5.995  | .772              | 5.625          | 6.245  | .90               |
| 40                                 | 3.5            | 5.55   | .630              | 4.5                               | 5.85   | .77               | 5.5            | 6.16   | .89               |
| 45                                 | 3.375          | 5.29   | .638              | 4.375                             | 5.68   | .77               | 5.375          | 6.07   | .88               |
| 50                                 | 3.25           | 5.02   | .647              | 4.25                              | 5.50   | .774              | 5.25           | 5.97   | .88               |
| 55                                 | 3.125          | 4.73   | .66               | 4.125                             | 5.29   | .78               | 5.125          | 5.855  | .87               |
| 60                                 | 3.0            | 4.43   | .678              | 4.0                               | 5.08   | .787              | 5.0            | 5.73   | .87               |
| 65                                 | 2.875          | 4.13   | .695              | 3.875                             | 4.86   | .797              | 4.875          | 5.595  | .87               |
| 70                                 | 2.75           | 3.83   | .72               | 3.75                              | 4.64   | .81               | 4.75           | 5.45   | .87               |
| 75                                 | 2.625          | 3.555  | .74               | 3.625                             | 4.43   | .818              | 4.625          | 5.295  | .87               |
| 80                                 | 2.5            | 3.28   | .762              | 3.5                               | 4.20   | .835              | 4.5            | 5.13   | .87               |
| 85                                 | 2.375          | 3.035  | .783              | 3.375                             | 3.975  | .85               | 4.375          | 4.965  | .88               |
| 90                                 | 2.25           | 2.80   | .805              | 3.25                              | 3.79   | .858              | 4.25           | 4.79   | .88               |
| 95                                 | 2.125          | 2.59   | .82               | 3.125                             | 3.595  | .87               | 4.125          | 4.61   | .89               |
| 100                                | 2.0            | 2.4    | .833              | 3.0                               | 3.42   | .878              | 4.0            | 4.43   | .90               |
| 105                                | 1.75           | 2.225  | .787              | 2.875                             | 3.235  | .895              | 3.875          | 4.245  | .91               |
| 110                                | 1.5            | 2.06   | .73               | 2.75                              | 3.06   | .9                | 3.75           | 4.07   | .92               |
| 115                                | 1.25           | 1.915  | .653              | 2.625                             | 2.9    | .906              | 3.625          | 3.895  | .93               |
| 120                                | 1.0            | 1.78   | .562              | 2.5                               | 2.75   | .91               | 3.5            | 3.72   | .94               |
| 125                                | 0.75           | 1.665  | .451              | 2.375                             | 2.605  | .912              | 3.375          | 3.55   | .95               |
| 130                                | 0.5            | 1.56   | .32               | 2.25                              | 2.47   | .91               | 3.250          | 3.39   | .91               |
| 135                                | 0.25           | 1.455  | .172              | 2.125                             | 2.335  | .91               | 3.125          | 3.23   | .96               |
| 140                                | 0.0            | 1.36   | .00               | 2.0                               | 2.22   | .907              | 3.0            | 3.08   | .97               |
| 145                                |                |        |                   | 1.75                              | 2.105  | .831              | 2.875          | 2.94   | .98               |
| 150                                |                |        |                   | 1.5                               | 2.0    | .75               | 2.75           | 2.8    | .98               |
| 155                                |                |        |                   | 1.25                              | 1.9    | .959              | 2.625          | 2.675  | .98               |
| 160                                |                |        |                   | 1.0                               | 1.81   | .553              | 2.5            | 2.55   | .98               |
| 165                                |                |        |                   | .75                               | 1.72   | .436              | 2.25           | 2.435  | .92               |
| 170                                |                |        |                   | .5                                | 1.64   | .305              | 2.0            | 2.33   | .85               |
| 175                                |                |        |                   | .25                               | 1.565  | .159              | 1.74           | 2.22   | .79               |
| 180                                |                |        |                   | 0                                 | 1.49   | 0                 | 1.5            | 2.12   | .70               |
| 185                                |                |        |                   |                                   |        |                   | 1.25           | 2.03   | .61               |
| 190                                |                |        |                   |                                   |        |                   | 1.0            | 1.94   | .51               |
| 195                                |                |        |                   |                                   |        |                   | .75            | 1.86   | .40               |
| 200                                |                |        |                   |                                   |        |                   | .5             | 1.78   | .28               |



## PRESENT POSITION OF CONCRETE AND STEEL CONSTRUCTION.\*

BY PROFESSOR HENRY ADAMS, M.Inst.C.E., M.I.Mech.E., M.S.A., F.S.I., F.R.San.I., etc.

extreme importance of the official regulations for the Use of Reinforced Concrete" in London, in the presence of which this Institute, with other bodies, has caused the public to devote a considerable amount of anxious thought to the discussion of various propositions during the last few years. While they desired to place the public in the way of sufficiently safe construction, they were, on the one hand, in duty bound to their members that no unnecessary restrictions should be placed upon it. For the first time in the history of the laws of mechanics in order to guard against bad workmanship, and to help thinking that this is a misapplication of securing safety, and in the formulæ should have been placed in an appendix. What would be the case if, in the steel-frame building, the incorrect bending moment were given by which the girders be calculated to compensate for the riveting to resist shear? In the present results only are stipulated stresses being assumed to be in accordance with the ordinary laws of mechanics. Béhar's paper, on "The True Moments of Beams with Various Degrees of Fixity," the matter was put up as follows: "It appears obvious that an engineer or architect should be called upon to apply regulations concerning reinforced concrete should have sufficient knowledge of the laws of mechanics to be able to deal with the problems which he may have to solve and to oblige him to follow certain rules would practically imply that he is unable of exercising proper control of the scheme or problem in reinforced concrete which he may have to consider." He is probably well aware that the distribution of stress in a complete concrete can only be approximately estimated and that reliable data for construction can only be slowly gathered from experiments and minute measurements of the induced strains, at least both time and money, but we have more precise knowledge of it than that if we adopt the accepted laws of mechanics we shall not go far astray.

**Workmanship and Supervision.** The Concrete Institute has emphasised more than another in connection with the materials the members are called in, it is the necessity for the best workmanship and the utmost supervision. The majority of the failures that have occurred have been due to poor materials or careless workmanship. Part of the secret of good work lies in the labour. Where labour is cheap it is poor both in quality and

scientific principles of reinforced concrete and structural mechanics are now known that the failures due to errors on the part of the designer are less numerous by their absence, but frequently there are failures reported which to the formwork being badly designed, fixed, or removed too early. In these matters are left to the carpenter, and however conscientious

he may be his good will is no substitute for experience.

*Curious Objection to Reinforced Concrete.*

A curious objection has been taken to building in reinforced concrete, which is, that it is so difficult to pull down. It is frequently said that it costs more to destroy a building than it does to put it up. It must be admitted that this method of building does not lend itself readily to alterations, and although I have not personally come across a case where this has been a serious matter, there is a recent instance in Germany where some concrete vaults which had to be removed cost twice as much to destroy as they had cost to build. In some other cases it has been found that only by recourse to blasting operations has it been possible to break up the work in this material, but the imperishable character of the structure and the small cost of upkeep are really very great points in its favour. Their inherent strength and the nature of their stability render these buildings peculiarly suitable to withstand vibration, and even earthquake, whereas ordinary construction is only stable while at rest, and the slightest earth tremors may have a disastrous effect.

Brickwork is one of the best fire-resisting materials, but a building cannot be erected in brickwork alone, and considerable loss of life has occurred in fires from the walls falling as they ceased to receive the support of the floors and roofs. Reinforced concrete, on the other hand, can be used not only for the walls but for the floors and roofs also, and the steelwork, which is often the cause of the greatest danger in a brick building, is so protected by the concrete that the fire has practically no effect upon it. Limestone must not be used in the aggregate, as that burns to pure lime in a fire and swells and disintegrates when water comes upon it. Coke breeze as an aggregate has been found to stand fire well and for that reason has been largely used by architects, but coke breeze has sometimes a deleterious effect upon the steel reinforcement, and is liable to swell in damp situations or if water reaches it. An indication of the value of reinforced concrete is given in the fact that a lower premium is asked by the Fire Insurance Committee for buildings in this material providing the floors are not less than 5 in. thick and the walls not less than 6 in. thick.

*Some Early Troubles.*

It will be interesting to look back upon some of the troubles that faced the early workers in reinforced concrete and to see how such troubles have been surmounted. One of the most frequent difficulties found in the early days of reinforced concrete building was the occurrence of cracks in the finished work. Some of these were undoubtedly due to over-limed cement and to coarse grinding, but the improvement effected by the publication of the Standard Specification of Portland Cement and the endeavour of manufacturers to keep up with it, and even to surpass it, have virtually eliminated this cause of trouble.

A still frequent cause of cracking is shrinkage upon the drying out of the moisture, but a remedy for this has been found in what is called "temperature reinforcement," which consists of the insertion of light rods, say  $\frac{1}{4}$ -in. diameter, and not more than 12 in. apart in the opposite direction to the main reinforcement and

near the surface, whereby the shrinkage, being confined within these limited areas, is so slight as to be invisible. Other causes are sudden changes of thickness, changes in the composition of the concrete, local currents of air upon the concrete while setting, insufficient reinforcement allowing deformation to occur, etc. Where the new surface is exposed to the sun the changes of temperature are apt to cause "crazing," particularly where the surface skin is richer in cement than the body of the work. The best remedy for this is perhaps to brush the surface with hydrochloric acid and then wash it with clear water.

*Size of Aggregate.*

Another cause of early difficulty was the uniformity in size of the larger aggregate. When the maximum of  $1\frac{1}{2}$  in. was reduced to 1 in. it was thought that this would be effective in producing solid concrete capable of being packed closely round the reinforcement, but tests showed that it was necessary to grade the aggregate from  $\frac{1}{4}$  in. to  $\frac{3}{4}$  in. to make sure of obtaining a solid concrete without voids and in perfect contact with the steel. In the same way the sand was found to produce better work when this material was not of uniform size, but was judiciously graded. As the cement has to envelop every particle of the aggregate, and cement one to the other, the grading involves the use of a smaller quantity of cement as the voids are small, and also reduces the waste of aggregate as nothing but dust has to be thrown away.

*Co-ordinating Experiments.*

Much valuable work has been practically lost because of the difficulty of co-ordinating experiments made with different materials under varying circumstances. An important suggestion has been made by one of our members, Mr. John A. Davenport, that for some time to come all experiments on reinforced concrete beams, columns, and similar structural members should be made on a standard steel and a standard concrete. By "standard steel" is meant one having a particular ultimate strength, yield point, elongation, and contraction; these could vary between limits, but the variation should be kept small. By "standard concrete" is meant one made of one particular coarse material, one particular sand, and one particular cement, always mixed in the same proportion with the same amount of water. The coarse material should always have the same sizes and grading, and the sand should likewise have definite sizes and grading which must always be the same. We should then be able to decide definitely many of the points which were the subject of lengthy discussions during the preparation of the Local Government Board Regulations—for example, what constituted fixed ends to beams, what width of floor slab should be taken as the flange of a T-beam, what was the actual economy of double reinforcement, how far a concentrated load might be considered to have spread by the time it reached the reinforcement, the comparative value of vertical and inclined shear stirrups, adhesion between the concrete and the reinforcement, the economical value of deformed bars, etc.

*Standard System of Measurement.*

A joint committee of the Concrete Institute and the Quantity Surveyors' Associa-

\* From the presidential address given at the annual general meeting of the session of the Institute, November 19.



tion have prepared a synopsis of a "Standard System of Measurement for Reinforced Concrete Work" which will greatly facilitate uniformity in the preparation of bills of quantities and reduce the risk of errors of misunderstanding and consequent disputes.

#### *Standard Specification.*

The Council have in hand a standard specification for reinforced concrete which is nearing completion, and if more uniformity in drafting specifications for such work can thereby be obtained there will be more certainty in the tendering and a greater absence of sporting items. The absence of immoderate or harsh clauses should lead not only to better work but also to cheaper construction. In publishing a model specification, however, and in widely circulating the information contained in the papers read at the meetings, there is some risk of encouraging incompetent men to attempt to prepare designs and carry through construction in reinforced concrete; but although such works would be likely to be small and insignificant, it cannot be pointed out too emphatically that success can only be obtained by employing men who have specialised in this class of work.

#### *The Question of Design.*

I think it may be useful for us to consider for a few minutes what is the usual method followed at present for obtaining the design for the structural parts of a reinforced concrete building and whether that method conduces to economy. The routine in most cases is for the architect to prepare an outline drawing showing the plan of each floor, with the cross walls, openings for doors and windows, and positions of stairways, lifts, etc., marking on it the loads to be carried and the height of each floor. He then obtains designs and estimates from a certain number of firms who devote themselves to this class of work but are each identified with a particular detail of construction, and selecting the offer which he considers the most suitable and economical, completes his own designs, and puts them before his client for approval. Now the question is, Does this method lead to economy and security? The designs so obtained, being competitive, are naturally based upon the minimum requirements of safety, and leave no margin for accidental errors or faulty material or workmanship, and some of the failures may possibly be due to this cause. I do not intend this as any reflection upon the skill or honesty of the specialists who at present prepare the majority of the designs, but it is not in human nature to provide more than the bare necessity of the case demands when the success of the tender depends upon the cost being kept down to a minimum. The Institution of Civil Engineers has recently issued a circular deprecating the preparation of designs in competition. As a consulting engineer, I may perhaps be biased, but I am of opinion that collaboration between the architect and the structural engineer is the preferable course, so that a single design may be prepared upon which contractors may tender upon a common basis. Against this it is often said that engineers' designs are expensive, and that there is no advantage in calling in an independent expert to prepare the design: but I think it will generally be found that the additional cost is due solely to a larger amount of reinforcement than appears in competitive designs, with the result that the building gains in greater stability.

There is another aspect of the case, and that is that when several designs are submitted the cost of the unaccepted designs

has to be met somehow. It increases what we may call the establishment charges, which must be met by a percentage added to the actual cost of all work, and the only advantage appears to be that with many men working upon the same scheme some one among the many may evolve a better result than one man alone would be likely to do.

#### *Loan Periods for Reinforced Concrete Structures.*

The Local Government Board are responsible for retarding the progress of reinforced concrete to a very great extent. Many structures that would have been put up in that material have not even got so far as the design, because of the known opposition of the Board and the heavy expense thrown upon the promoters by reason of the short period for which a loan would be granted. They have fixed no actual periods for loans for the various classes of work, as each case is considered on its merits, having regard to the purpose of the work and its position, but they vary usually from ten years where the work is in contact with water to thirty years in the floors of a building.

If there were any reasonable doubt as to the probable duration of reinforced concrete structures in general, the Council of the Concrete Institute would be the first to know it, but they have the evidence of their own personal investigations that it exceeds fifty years, and they do not hesitate to advise its use where that is not hampered by the consideration of a loan through the Local Government Board. When Eddystone Lighthouse was pulled down in 1884 a bundle of iron rods which had been accidentally left in the concrete foundation in 1757 (127 years) was found to be in perfect condition, and one would have supposed that was in a sufficiently exposed situation to prove the safety against corrosion.

#### *Structural Engineering.*

So much has been said lately about structural engineering and so many persons seem to be in doubt as to what is meant by it, that I should like to devote a short time to its consideration. It is a great mistake to suppose that it consists of steel-framed buildings only; that is merely one branch of a very large subject. Reinforced concrete is another branch—a very large one, and possibly the main stem, at least for us. These two forms of construction will in the future, so far as we can foresee, constitute the chief work of the structural engineer, but buildings in other materials—wood, stone, and brick—come under the head of structural engineering when the chief object is stability. Bridges, towers, jetties, retaining walls, roofs, tanks, reservoirs, dams, and many other structures would come under this classification, and it is to enable us to deal with all these in our papers and discussions that the Council have endeavoured to broaden the scope of the Concrete Institute. Bridges alone should be a fertile subject. So many examples have now been completed in reinforced concrete that we can form a fair idea of the value of that mode of construction. It has a distinct advantage over brickwork and masonry in being able to resist tensile stresses and changes of compression and tension due to rolling loads.

#### *Arch Construction.*

No one type is predominant, but the arch enters into most of them. An arch is not only a pleasing form of construction, it is based on sound scientific principles and is an economical disposition of material. I have considerable doubt

whether it is desirable to construct arches in this material, whether hinged or three-hinged. It appears that it is almost equivalent to simply supported girders when you have the opportunity to make them continuous. There is, of course, the advantage of line of thrust must pass through hinges, but there is no difficulty in proportioning an ordinary fixed arch to line of thrust nowhere unduly less than thickness provided. It may be said no one knows the exact course of line of thrust, but we know that Nature has the course of resisting a load with a minimum of stress, and we shall be far wrong if we take the line of thrust that the extreme stresses on the haunches are as nearly equal as possible. The favourite method of construction is to be a flat or cambered floor with main beams and pillars from main beams to the arch itself, the arch being a continuous sheet or ribbed when the latter the pillars are transversely and the arch is stiffened by repetition of main and cross beams similar to those under the bridge floor. This work, as in all arches, it is necessary to provide rigid abutments, but reinforced concrete will withstand a shifting abutment better than any other material.

The progress made in arched building in reinforced concrete is remarkable for a comparatively new material. Among the larger examples we have a span in the Walnut Lane Bridge, Philadelphia; 320 ft. at Grafton, New Zealand; 328 ft. over the Tiber at Rome; 320 ft. at Largweiz, in Switzerland—all within a difference. Now we have the Spuyten-Duyvil Creek Bridge at New York, where a span of 703 ft. is proposed or more than double.

The general movement that has taken place throughout the kingdom to improve the high-roads has not gone so far as might have done in the direction of improving the existing bridges. Reinforced concrete is such an admirable mode of construction for highway bridges that the Concrete Institute formed a joint committee with other bodies to standardise loading to be provided for in bridges of different classes. They collected information from all parts of the country as to weight and dimensions of the actual loads and decided what maximum load class of bridge should be rated to. Their labours are nearly completed and it is hoped that they will be able to produce a single chart that will reduce draughtsman's labour to a minimum.

#### *Steel-framed Construction.*

Although steel, according to the statement of William Siemens, has been used for structural purposes from the year of the Crystal Exhibition (1851), the modern use of steel framework in the construction of buildings dates practically from the late 19th century in America, and more recently in England. The extensive use of steel in all classes of buildings at the present time makes the study of steel-framed construction of the utmost importance; but it is a very common mistake to imagine that any member of this Institute wishes to put reinforced concrete in the background because of the importance of steelwork. Our Institute was built up on reinforced concrete and it should be the primary care of the Council to see that it does not suffer from any reason of any extension of the scope of other modes of construction. As a statement of the importance of a steel framework, I may mention that the new Life Assurance building of for-



now being erected in New York will nearly forty-five acres of floor and 35,000 tons of steel, held by a million rivets, will be in the construction, the total cost \$6,000,000.

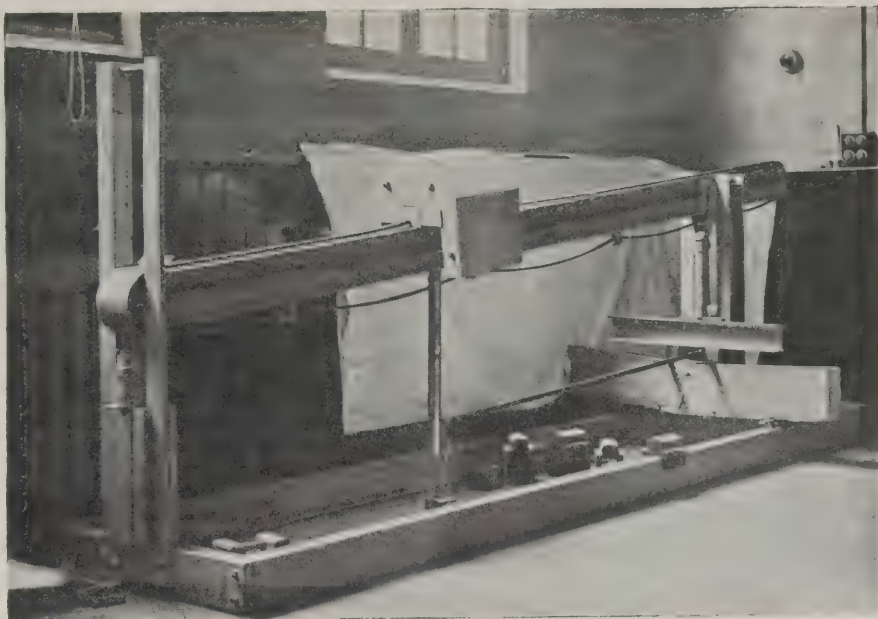
Steel-framed buildings, although the branch of metal work to interest us, is only one. We must know some bridges in metal before we can make a comparison with those in concrete, and it is not the ones only that we should study. The bridge now constructing in this for erection across the Ganges is long, in fifteen spans of about each, and will contain 30,000 tons. This is a gigantic affair and the probable professional outlook of us, but there are many interesting structures between that and a steel joist which we can study and with advantage.

#### Reinforced Concrete Piles.

Science Committee have for a long time endeavoured to gather useful information upon the driving and support of reinforced concrete piles, but they have not been able to collect material for a report. Records of height and fall of ram, number of blows and distance driven are very numerous but comparatively useless. Some records are accompanied by photographs of a test, when the pile sustains a given load without yielding, but it would have yielded with ten or twenty times the test load we have no way of knowing. What is required is a series of experiments with small piles, say 12 in. square, 20 ft. long, driven 15 ft., and recorded until they sink farther. This is the beginning and would enable us to compare reinforced concrete with timber piles. I have a collection of about forty formulae for the latter, but more or less *unreliable*, but none for the former. At Halifax, Nova Scotia, the largest reinforced concrete pile has been recently driven by the steam pile-driver in the world. The pile is 12 ft. square and 77 ft. long; the ram, follower, and follower-guide weigh 28,000 lb., and the ram alone weighs 4,000 lb. With a mean effective pressure of 80 lb. per sq. in. in the cylinder of the engine operating the driver, the rammer is rated to develop 3,916,000 ft. lbs. per minute, when striking eighty times per minute. Twenty-five piles have been driven by this machine in a ten-hour run; this record is already exceeded by piles at Havana, and tenders have been ordered for a pier at San Francisco in which piles 91 ft. long and 20 in. square are to be constructed. They will weigh 5 tons each, and are specified to sustain in addition to their own weight a load of 5 tons. The concrete will be allowed to set for 45 days, and will be allowed forty-five days setting before being driven.

#### Foundations.

Reinforced concrete has been the means of saving a considerable expenditure of money in the cost of foundations otherwise obtained by piling. By enabling the pressure to be spread over a considerable area, there is much doubt it has in many cases enabled buildings to be safely erected on soil that would have defied the old method of putting in foundations. Concrete has been used for a long time, but only when they were reinforced it was not known how to find the heavily loaded foundations anchoring their way through the concrete. Perhaps the greatest innovation is in connection with bridge founda-



EXPERIMENTAL TESTING MACHINE, WESTMINSTER TECHNICAL INSTITUTE.

tions, which are often very deep, 100 ft. or more below high-water mark. In the case of the Hawkesbury Bridge, in New South Wales, the foundations went down to 162 ft. below high-water level.

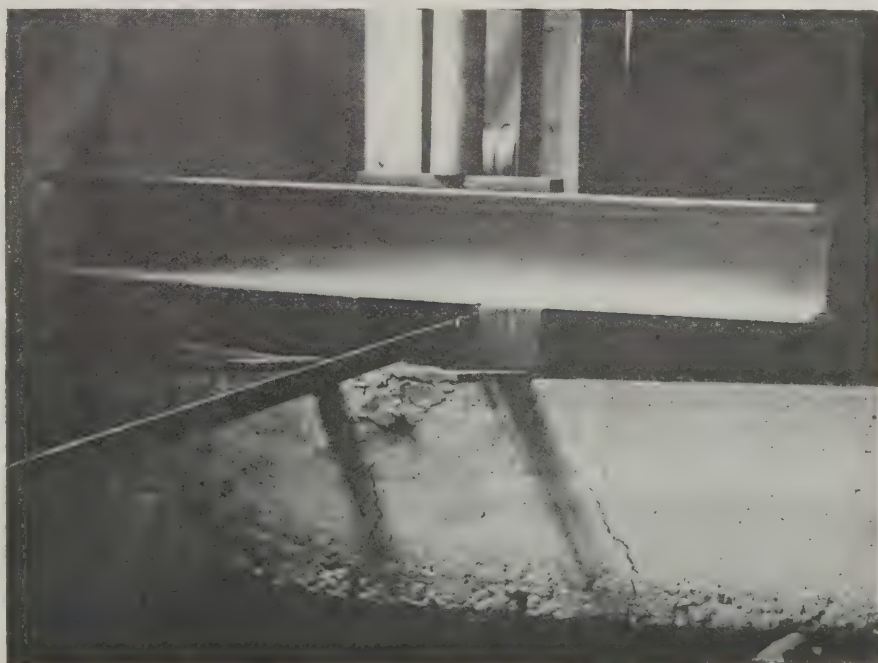
#### AN EXPERIMENTAL TESTING MACHINE.

Some time ago we illustrated a testing machine for small experimental beams and members of reinforced concrete then in use at the Westminster Technical Institute, and constructed by the institute staff from wood beams in stock with metal bearing plates. Some excellent results were obtained with this apparently crude apparatus, loads from 17 lb. up to two tons being measurable, whilst an ingenious deflection apparatus registered deformations so small that between twenty and thirty readings could be plotted over a total range of  $2\frac{1}{2}$  millimetres—about the thickness of three ordinary steel knitting needles; in fact, the

theory of predetermining deflection recommended in the report of the Institution of Civil Engineers (Second Report, page 77) was to a large extent first worked out with this machine.

We now illustrate a more ambitious machine, also designed and constructed by the institute staff last winter. The framework is built up of ordinary rolled sections, and the moving weight (2,000 lb. of lead on roller bearings) is traversed by a ratchet wheel and an endless chain. The main lever is balanced on hardened steel bearings, and is provided with a powerful spiral spring to absorb the shock of the sudden breaking of a beam. Loads up to twenty tons can be imposed on small specimens and short beams, and smaller loads on slabs and long beams. Deflections can be measured with the same accuracy as on the original machine. The new testing machine, we understand, was designed by Mr. S. G. Wybrow, now serving with the Royal Flying Corps.

The attendance at lectures in the higher branches of technical education at all the



DETAIL OF REINFORCED CONCRETE BEAM UNDER TEST.



London colleges has been so seriously affected by the war that we are glad to note that the well-known practical course at Westminster, under the direction of Mr. Percy J. Waldram, F.S.I., M.C.I., is still able to continue.

## NEWS ITEMS.

### *A Builder's Estate.*

The late Mr. Charles Ansell, of Herne Bay, formerly in business as a builder at Lambeth, left £15,912.

### *Cost of Hull Guildhall.*

At the last meeting of the Hull Corporation Property Committee, the City Accountant reported that the cost of the first and second portions of the Guildhall was £113,232, as against £119,869 estimated by the City Architect (Mr. Joseph H. Hirst), a saving of £6,727 having been effected.

### *Claridge's Asphalte.*

An order for the asphaltting at the extensions to the National Gallery under H.M. Office of Works has been placed with Claridge's Patent Asphalte Co., Ltd., of 3, Central Buildings, Westminster. This firm also have in hand the asphaltting of the offices for the New Zealand Government, 413-416, Strand, and Royal Mews, Buckingham Palace.

### *The New Southwark Bridge.*

Mr. W. Hayward Pitman, chairman of the Bridge House Estates Committee of the Corporation, laid the foundation-stone of the new Southwark Bridge on November 20. Speaking afterwards, he said the approaches to the bridge were now virtually complete. They owed great thanks to the Fleet for having kept the seas open, so that the great blocks of granite to be used in the construction of the bridge could be delivered in good time. Mr. Biggart, representing Sir

William Arrol and Co., Ltd., the contractors, said he believed the bridge would be finished to contract time.

### *Church Burned Down.*

Withington Congregational Church, Manchester, built in 1882 at a cost of nearly £14,000, was totally destroyed by fire early on the morning of November 22. The fire is supposed to have originated in the heating apparatus, and so rapidly did the flames spread that in less than twenty minutes the structure was ablaze from end to end, and all the firemen could do was to protect the adjoining house property.

### *Subscriptions of R.I.B.A. Members on Service.*

The Council of the Royal Institute of British Architects, acting on the advice of the Finance and House Committee, have resolved that subscriptions due in January, 1915, shall be remitted in the case of all Members and Licentiates who are at that time actively engaged in the defence of the country, and that the publications of the Institute shall be sent to their home addresses during the period of their service.

### *"Heating and Ventilation."*

Under this heading the Acme Ventilating and Heating Co., 34, Tarleton Street, Liverpool, have issued a booklet describing their system of central heating with hot-water low-pressure steam, warm air, etc., and giving a list of important buildings of various classes—churches, schools, offices, shops, motor garages, warehouses, convalescent homes, residences, a new theatre, etc.—in which their installations have been successfully adopted. The firm are also experts in ventilation.

### *New Church at Mitcham.*

The Bishop of Southwark has consecrated the Church of St. Barnabas, Mitcham, which has been built from designs by Mr. H. P. Burke Downing, F.R.I.B.A., of Westminster. The building consists of a nave of four bays and chancel of two bays, with south aisle, and

at the eastern end of this aisle the organ chamber and vestries. A lofty belfry at the east end provides for a full peal of eight bells. The cost of the fabric is about £9,500.

### *Waterproofing Territorial Headquarters.*

The architects for the Yarn Territorial headquarters, Middlesbrough, report that they have used "Pudlo" for waterproofing the basement of this building, the result being very satisfactory.

### *Monument to Lord Roberts.*

In the House of Commons last Tuesday, Mr. Ellis Griffith (Parliamentary Secretary, Home Office) brought up the following Message from the King to the table of the House: "I have received your address praying that I will give directions that a monument be erected at the public charge to the memory of the late Field Marshal Earl Roberts, with an inscription expressing the admiration of the House of Commons for his illustrious military career and its gratitude for his devoted services to the State. I will gladly give directions that your proposal to do honor to the memory of this great and devoted servant of the State be carried into effect."

## STRUCTURAL STEELWORK.

A large number of roofs of special design which admirably meet the demanding conditions of large span and economical cost have been designed, supplied and erected by Messrs. Peirson and Co., 4, and 18, St. Dunstan's Hill, E.C., whose experience extends over forty years. The accompanying illustration is an example of one of several of this type which have been erected in London. The firm specialise in steel coal-storage bunkers, tanks, and in addition they undertake the supply and erection of steel framed buildings, stanchions, girders, and general structural work as applied to building construction.



LARGE-SPAN ROOF OF SPECIAL DESIGN.

(See "Structural Steelwork.")



An Absolutely Reliable and Uniform Material.

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Agencies throughout the United Kingdom.



## PROJECTED NEW WORKS.

*School, Oswaldtwistle.*

The Lancashire Education Committee have approved plans for a new school at Moor End to cost about £10,000.

*Extensions, Brighton.*

Brighton Tramways Committee are asking for £4,000 to carry out extensions and improvements at the tramway depot.

*Asylum, Middlesex.*

The Middlesex County Council have decided to appropriate land on the Bath Road, near Heston, as a site for a proposed new asylum for mental defectives.

*Cottages, Northampton.*

Northampton Town Council are to build a number of workmen's cottages at Hollowell at a cost of £220 each. Plans have been prepared and tenders will shortly be invited.

*Workmen's Houses, Ilford.*

The Ilford Urban District Council have instructed their surveyor, Mr. H. Shaw, to report upon the suitability of a site at Barkingside on which to build houses for workmen.

*Baths, Birmingham.*

The Birmingham City Council have applied to the Local Government Board for sanction to borrow £19,262 for the erection of public baths in George Arthur Road, Saltley. An enquiry has been held.

*Sanatorium, Lower Penn, Birmingham.*

At a meeting of the Staffordshire, Wolverhampton, and Dudley Joint Committee for Tuberculosis, the Sanatorium Sites Sub-Committee recommended that a sanatorium should be erected at Lower Penn, somewhat on the lines of that at Yardley, but with many modifications.

*Factory, Kidderminster.*

The Kidderminster Chamber of Commerce has passed a resolution urging the local authority and the Worcestershire County Council to erect a beet sugar factory in the town. It is suggested that the authorities should apply to the Development Commissioners for a loan of £100,000 for this purpose.

*Council Offices, Shrewsbury.*

The Salop County Council have agreed to promote a Bill in the present session of Parliament to give powers to the Council to pull down, remove, alter, or sell the Shire Hall and Guildhall, and to authorise the payment by the Council to the Shrewsbury Corporation of £12,500 towards the cost of the erection of new offices for the Corporation.

*City Hall, Dundee.*

Plans of the proposed new City Hall have been submitted to the Dundee Town Council. It was stated at the meeting that, in addition to the City Hall, the Council contemplate an expenditure of £25,000 for the purchase of property and the erection of a new public market. Detailed plans are to be brought up in two months' time, when the matter will be settled.

*£45,000 Housing Scheme, Clydebank.*

Plans have been passed by the Clydebank Dean of Guild Court of thirty-three tenements, consisting of 198 houses, to be erected to the west of Dalmuir Parish Church by the Dalmuir (West of Scotland) Estate Company, Ltd., at an estimated cost of £45,000. The same authority has approved plans for the erection of a terrace of twelve houses in Whitecrook Street, Clydebank, by Messrs. Brown and Co., shipbuilders.

*Carnegie Building, Dunfermline.*

A new Carnegie building of five storeys is to be erected in Dunfermline for the administration of the three Trusts—the Carnegie Dunfermline Trust, the Carnegie Hero Fund, and the Carnegie United Kingdom Trust. A suite of central offices is to be built, and for this purpose the site occupied by Viewfield House, together with an adjoining dwelling-house, has been purchased.

## CONTRACTORS' CLAIM AGAINST BRISTOL CORPORATION.

References to the case of Aird v. Bristol Corporation, in which the contractors claimed a large sum in connexion with the Royal Edward Dock at Avonmouth, were made in our issues of November 11 and 25.

When the parties met on November 26, Mr. Upjohn (for the plaintiffs) said he was pleased to say that owing to the kind mediation of the arbitrator the parties had now come to an agreement for settlement, and the arbitrator would not be further troubled in the matter. The terms were: By consent judgment would be entered in favour of Messrs. Aird for £65,000 and in addition the sum of £34 9s. 4d. paid into Court by defendants to the credit of the action to be paid out to the plaintiffs. Each party to pay their own costs of the action and half of the arbitrator's fees and assessor's fees be paid by each party; and if one party paid the whole of such fees the other party should repay to them the other half. Mr. Gore Browne (for the Corporation) assented and judgment was entered accordingly.

## GOVERNMENT ASSISTANCE FOR BUILDING SCHEMES.

Mr. Lloyd George, writing to Mr. Thomas Richardson, M.P., states that the Treasury, in view of the exceptional conditions now prevailing in respect of rate of interest and cost of building, will make advances for housing schemes on the following terms to local authorities: Ten per cent. of the approved cost by way of free grant, the remaining 90 per cent. as loan with interest at 4½ per cent. per annum, to be repaid by annual instalments within the period usually authorised.

To authorised societies advances would be made up to nine-tenths of the total approved capital expenditure, comprising a free grant of 10 per cent. and a loan of 80 per cent. of the expenditure. On a sixty years' loan the annuity would be at the rate of 5 per cent.

The Treasury would only advance money for approved schemes under the Housing (No. 2) Act in cases where unemployment in the building trade consequent on the war is exceptional and is not being provided for in other ways. These terms are subject to alteration from time to time.

## COMPETITIONS.

*Tuberculosis Hospital, Southend-on-Sea.*

Members and Licentiatees of the Royal Institute of British Architects and members of the Society of Architects are requested not to take part in the above competition, the conditions of which are not satisfactory.

*School, Dundee.*

Eleven designs were submitted in this competition, and the assessor, Mr. Alexander N. Paterson, placed first one of two

sets of designs by Messrs. Maclaren, and Soutar. This design was approved by the School Board, who further awarded a premium of fifty guineas to Mr. Veale Constable, of Barnhill, and one of ten guineas to Messrs. Thoms and Watson. The building is estimated to cost £12,000.

*Street Planning, Bradford.*

Bradford Corporation invite competition designs for the re-planning of street the central area of the city. Mr. Reginald Blomfield, R.A., will act as assessor. Particulars (£1 is., returnable) from Frederick Stevens, Town Clerk, Town Hall, Bradford.

## LIST OF COMPETITIONS OPEN.

DECEMBER 4.—TUBERCULOSIS HOSPITAL, SOUTHEND-ON-SEA.—The Corporation invite designs for a tuberculosis hospital. Premiums, £100, £50, and £25. Particulars (£1 is., returnable) from Messrs. Ernest J. Elford, Borough Engineer, Southend-on-Sea. (See note above.)

DECEMBER 7.—GIRLS' SECONDARY SCHOOL, LUTON.—The Bedfordshire County Council invite architects willing to compete for a secondary school at Luton to send in their names by December 7. Mr. W. W. Marks, clerk to Council, Town Hall, Bedford. Eight architects will be selected, each to receive an honorarium of ten guineas.

FEBRUARY 8, 1915.—WORKMEN'S DWELLINGS, CITY OF LIVERPOOL.—The Corporation of Liverpool invite designs for workmen's dwellings to accommodate about 100 persons, to be erected on the Rathbone Street area. Premiums of £100, £50, and £25 are offered, and the Council have appointed Mr. Henry Hartley, F.R.I.B.A., assessor. Particulars (£1 is., returnable) from Mr. Edward R. Pickmere, Clerk, Municipal Offices, Liverpool.

*Timber as Contraband.*

All steamers laden with wood which Swedish harbours before Germany declared wood to be contraband of war now being seized by German warships in the Baltic. Excitement is running high in Norway and Sweden, as there seems no possibility of inducing the German Government to alter its decision, but the Norwegian Foreign Office has followed Sweden's lead by lodging a protest with the German Foreign Secretary in Berlin. An effect anticipated is an understanding between Norway, Sweden, and Russia.

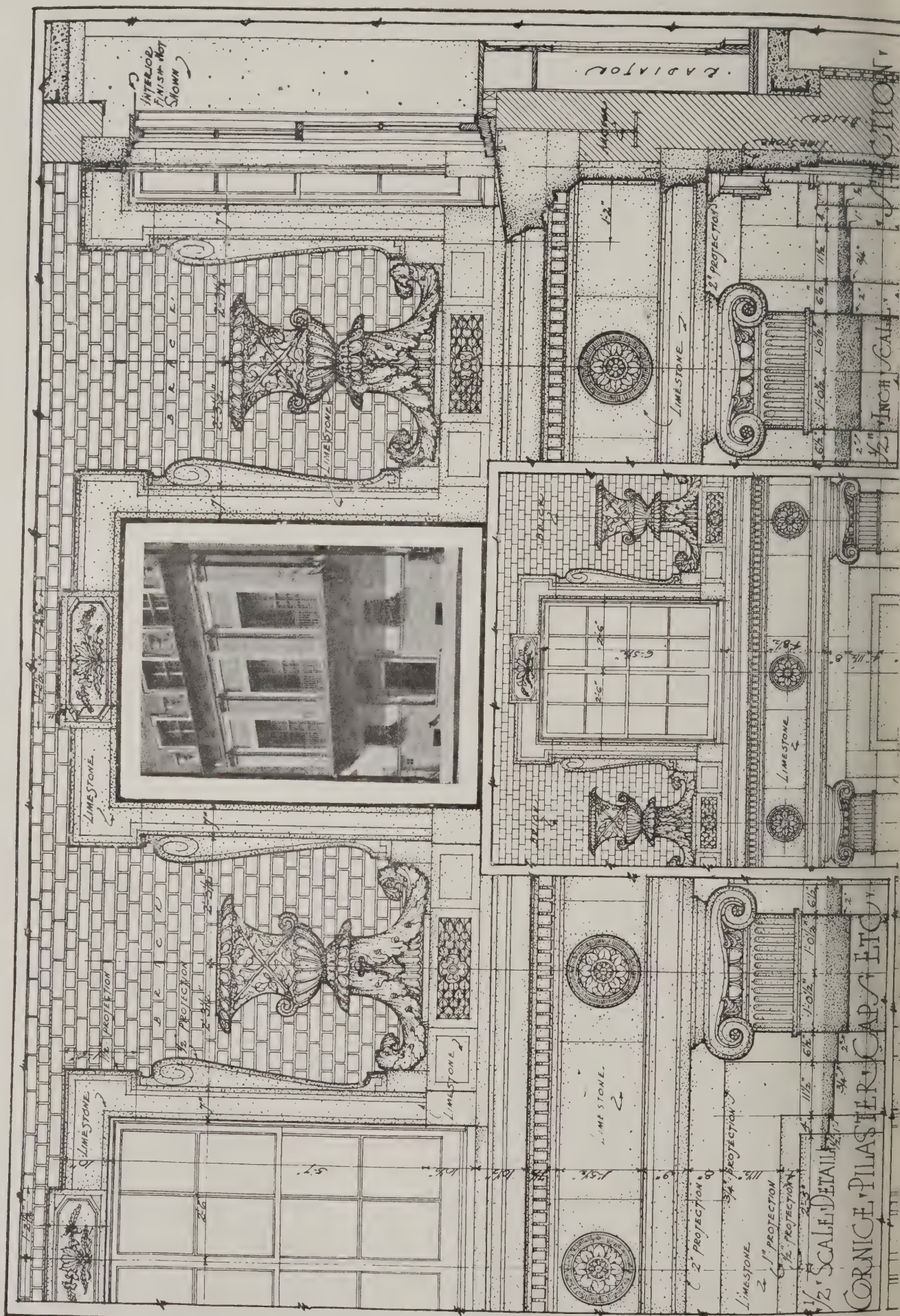
*"Equiluxo" Glassware.*

An agreeable diffusion of artificial light is an object of so much importance that it has, especially of late years, received most earnest attention of illuminating engineers. A material that is in extensive use in the form of bowls and spheres for lighting the show-rooms of high-drapery establishments, department stores, etc., and has been installed, for instance, throughout Messrs. Robins and Cleaver's new premises, on the ground floor of Messrs. Harrod's, Ltd., and in the Saxone Shoe Co.'s branches, is "Equiluxo" glass, of which a specimen has been sent to us in the form of an elegant tray, for which architects who do not smoke may find other uses—as a tray for drawing-pins, paper-fasteners, or what you will. The General Electric Co., Ltd., 67, Queen Victoria Street, inform us that they will be pleased to present one of these trays to any interested enquirer about "Equiluxo" glassware. Of the efficacy of this glass, especially in conjunction with half-lights, it will be a constant reminder to those who give it a place in their office.

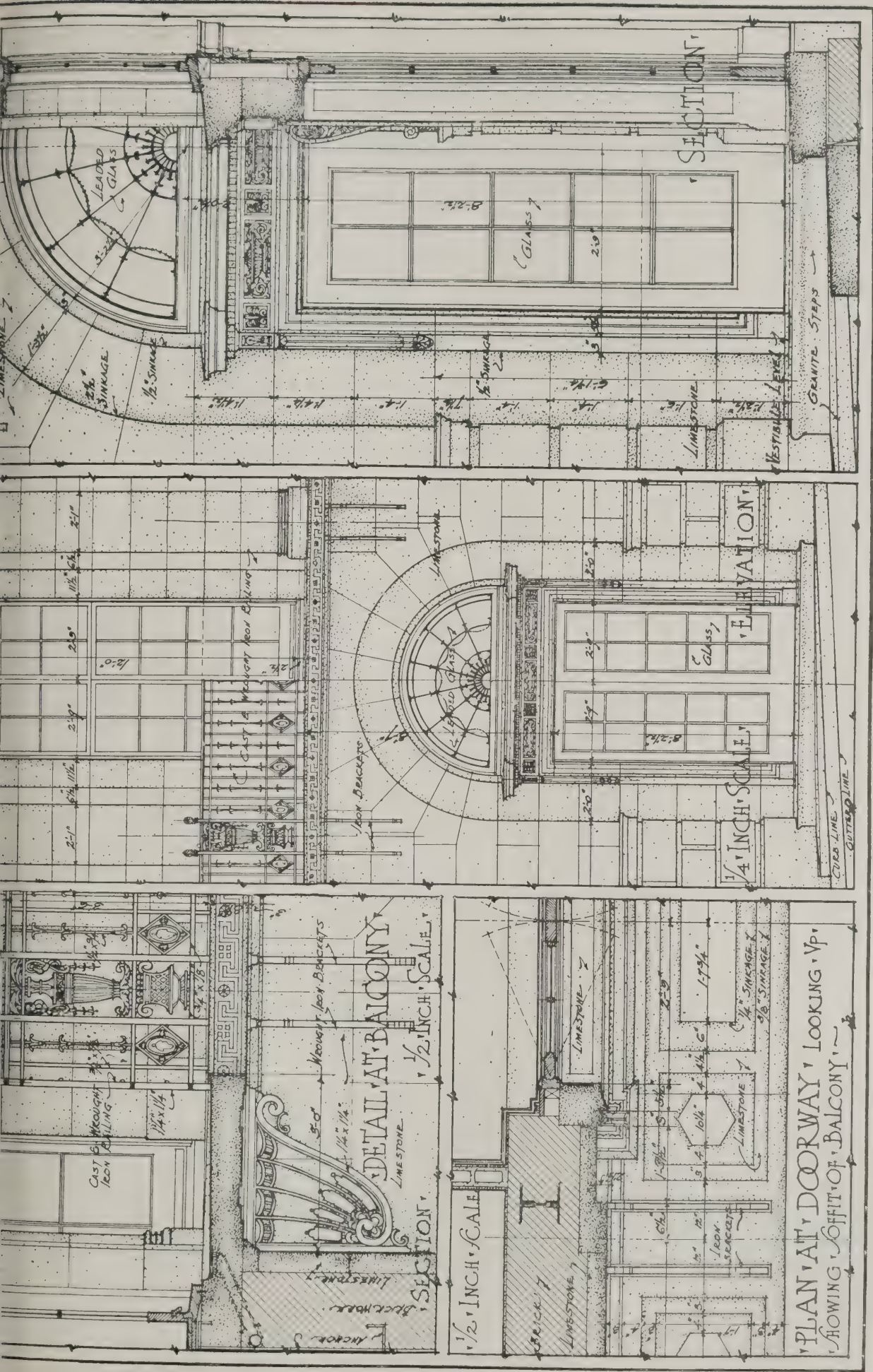


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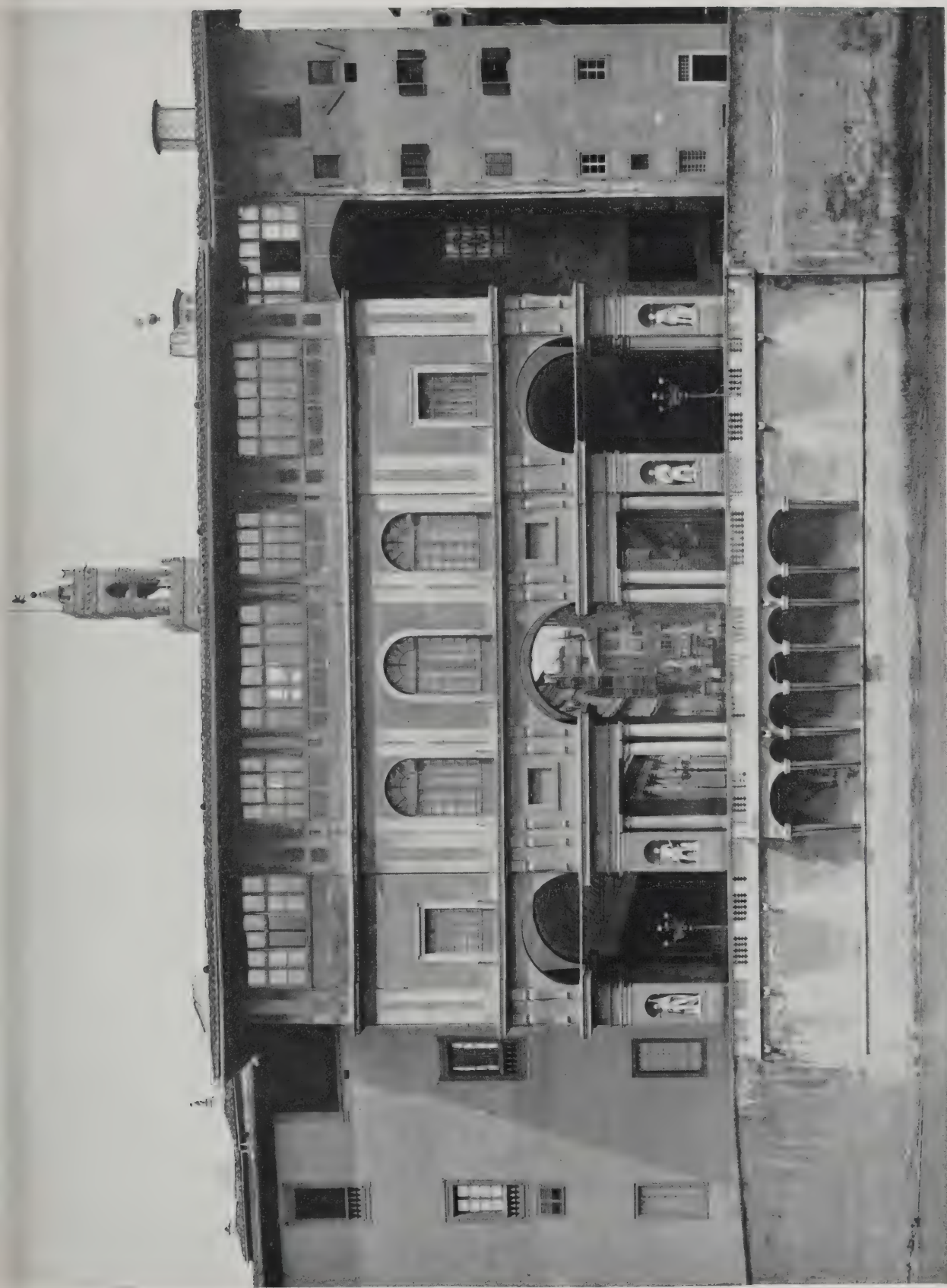


WORKING DRAWINGS BY WELL-KNOWN ARCHITECTS (NEW SERIES). XLVIII.—WOMEN'S UNIVERSITY CLUB, NEW YORK; DETAIL OF CENTRAL FEATURE.  
NELSON AND VAN WAGENEN, ARCHITECTS. DRAWN BY WALTER MCQUADE.



UNIVERSITY OF MICHIGAN





FLORENTINE PALACES. I.—FAÇADE OF THE PORTICO TO THE UFFIZI.

VASARI AND A. PARIGI, ARCHITECTS.









FRENCH EMPIRE FURNITURE. VIII.—CHAIR IN THE GRAND TRIANON, VERSAILLES.







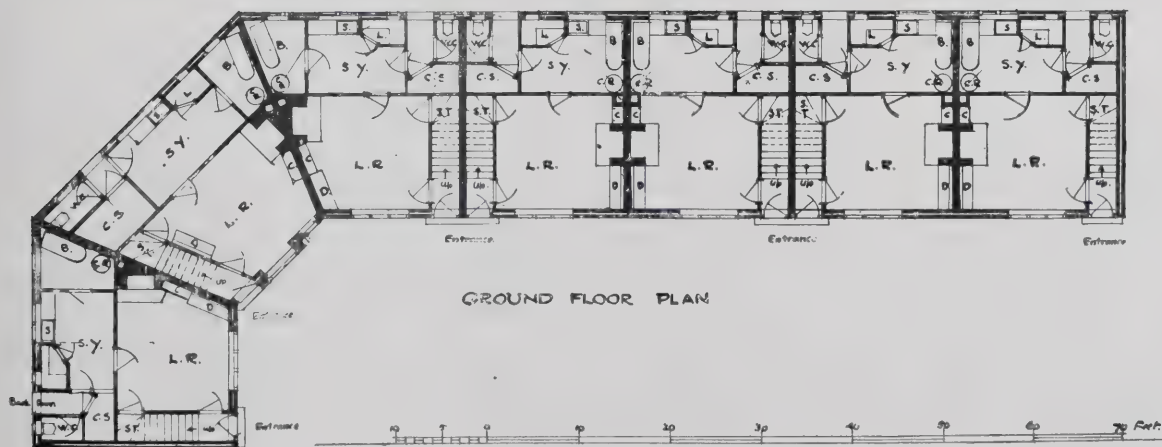
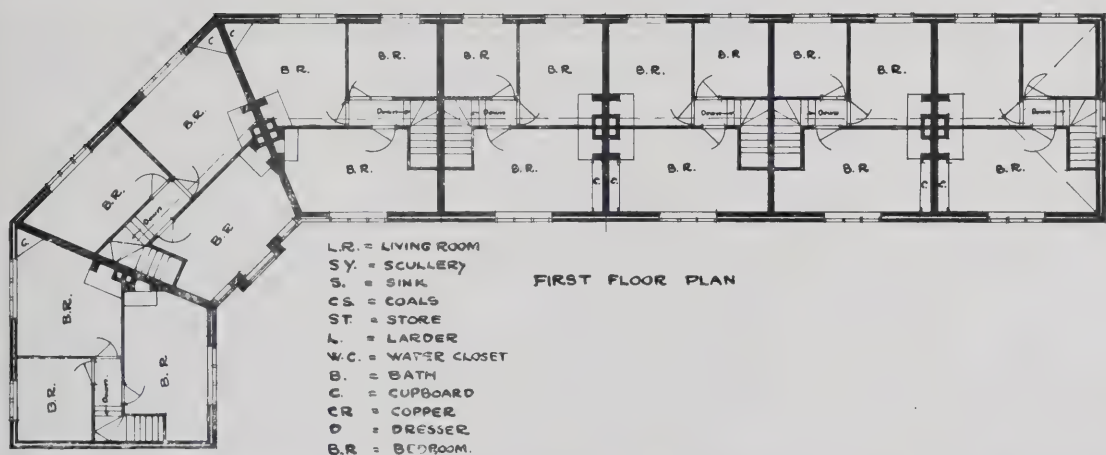


SMALL HOUSES OF THE LATE GEORGIAN PERIOD. XXXV.—HOUSE ON THE PARADE, WEYMOUTH.









MODERN DOMESTIC ARCHITECTURE. XLVII.—LABOURERS' COTTAGES, TADWORTH, SURREY.

C. H. B. QUENNEL, F.R.I.B.A., ARCHITECT.









*Photo: Bedford Lemere & Co.*

CURRENT ARCHITECTURE. XCIV.—NEW CHOIR STALLS AND ORGAN CASE, DUNBLANE CATHEDRAL.

SIR ROBERT LORIMER, A.R.S.A., F.R.I.B.A., ARCHITECT.









*Photo: Bedford Lemere & Co.*

CURRENT ARCHITECTURE. XCV.—DETAIL OF NEW CHOIR STALLS, DUNBLANE CATHEDRAL.

SIR ROBERT LORIMER, A.R.S.A., F.R.I.B.A., ARCHITECT.







# THE ARCHITECTS' & BUILDERS' JOURNAL.

Wednesday, December 9, 1914.

Volume XL. No. 1040.

No. 114.



(From Piranesi.)



# THE ARCHITECTS' & BUILDERS' JOURNAL.

DECEMBER 9, 1914.

TOTHILL STREET, WESTMINSTER.

VOLUME 40. No. 1040.

## EDITORIAL.

MANCHESTER, justly enough, claims to be the capital of a great industrial area; and while the very name is redolent of the dust and smoke of strenuous commercial traffic, it conveys with hardly less strength an impression of persistent endeavour to neutralise the crude effects of unmitigated industrialism. Many fine buildings bear witness that Manchester's utilitarian bent has produced its own antidote in a very decided revulsion towards art and the humanities, while its citizens have always included many who have realised to the full the supreme importance of æsthetic amenity. These have effected much, and they mean to do much more.

\* \* \* \*

An opportunity for redeeming Manchester from some of its unlovely traits presents itself in the scheme for the improvement of traffic facilities which the Council now have under consideration; and a very able writer in the "Manchester City News" is making excellent use of the occasion by suggesting, in a series of articles on "Civic Beauty," the lines on which this necessary work may be turned to ameliorative account. Improvement of traffic facilities will probably involve the widening and straightening of streets, and consequently a great deal of demolition and rebuilding. As the new buildings will determine for some generations the architectural character of a large portion of the city, it behoves the citizens to take thought what character they will confer upon their city and upon themselves—whether it is to be mean and sordid, or stately and dignified, or unsplendidly null. For although the scheme may be only partial—and it is a thousand pities that in this country these things are always done piecemeal, and each piece sublimely incongruous—it may be expected to have a predominating influence on the schemes that follow it.

\* \* \* \*

There is no real contradiction in speaking of incongruity and influence in the same breath. Bad examples may be imitated, or they may cause reaction. In either case influence is, directly or indirectly, operative. And the influence is not confined to one building upon another, or one street or whole district upon another. It radiates perpetually upon the people, affecting their outlook, their habits, and their happiness, and it therefore implies a moral obligation to build beautifully. Lest the argument from æstheticism should be lost on a commercial community, the writer we have cited adopts a utilitarian plea that we ourselves have frequently advanced. "We can almost hear the economical ratepayer saying, 'If we allow these artists and architects to run loose they will ruin us.' It is not true. Beauty is not only attractive; it is profitable and pays in the long run." Get the utilitarian mind to see that, and the case for amelioration will be won.

Nor should it be impossible, nor even very difficult to convince the business man that it is, in the ultimate issues, unprofitable to build meanly, or to perpetuate the bad planning of cities which has grown haphazard out of shortsighted regard for individual interests which, in the case of municipal undertakings, represents fear of the wrath and loss of the suffrage of the resentful ratepayer. Fortunately there can be cited the very notable example of the interest of practical-minded and businesslike Americans. No one can accuse them of a lofty disregard for money-making; and yet they spend lavishly on building decoration, and carry out their town-planning and park formation regardless of expense. They know that "money brings money," and that the cost of a bank, for example, built in the grand manner, sumptuously equipped, is an investment that will yield a rich dividend. They know too that, like the nation as a whole, the mean city does not prosper, that what is spent on art galleries, libraries, museums, and public spaces will be much more than compensated by savings on jails and infirmaries, and that the possession of health, intelligence, and efficiency must be an immense, if incalculable, since it most certainly places the whole community on a higher level of productive capacity and commercial influence. "Civic pride," it has been called, is realised by the American people, being "a sound business proposition," and those who may be inclined to scorn so low a basis for amelioration may console themselves with the reflection that, at all, some sort of utility—using that word in its widest sense as including all things which tend to secure the welfare—is at the root of the whole matter. To make this approach to the hard-headed unconverted legitimate enough, the end justifying the means. In all events, to talk to the business man in his own language seems to be the only chance of making an attentive listener.

\* \* \* \*

Another point raised by the Manchester writer shows yet further the interaction between architecture and sociology. He notices that at present towns and places of residence are only popular with the poor, who flock in large numbers to them; whilst the well-to-do, when their day's work in them is over, flock in another direction. His argument is that if towns were more attractive and more healthy, people would be glad to live in them, and save the expense and trouble of incessant journeyings to and fro. Paris is so popular, he thinks, because it is so well laid out. That is a very good reason, and perhaps the chief one. It is upon somewhat similar grounds that, as we have remarked upon a previous occasion, London is increasing in favour as a place of residence. While, however, it cannot be pretended that London is well laid out, it is undeniably healthy—vital statistics duly attest the fact. With its many fine buildings, public and private,



s rare wealth of open spaces, it has in it all the  
nts of a noble city; but, alas! these fail lament-  
of their due effect because they are not placed  
posed in accordance with any orderly scheme of  
planning. They simply "occur"—mostly in  
where they ought not to be—the parks as well  
buildings.

ve of change, the set of fashion, the alternating  
s of what is called taste, the craze for "week-  
g," or the proof from experience that suburban  
nce was not all that fancy painted it, may all be  
s in the return to London. In particular, the  
covery that the Georgian squares and crescents  
erraces which through familiarity had lost their  
tion for the fathers are found by the sons to be  
comely without and more comfortable within than  
burban villas whose sameness and tameness are  
ning to pall to the extent of rendering them but  
or excuse for a tedious journey to and fro.  
her or not the movement will continue until  
hester as well as London shall have mingled the  
ad the poor in something like normal proportions,  
whether if it goes on to fulness there will again  
another exodus, it were useless to speculate. The  
thing that is certain is, that as Mr. Marriott-  
on puts it in his delightful semi-ironical essay  
"A Plea for Inconstancy," "Nature has an  
it dislike to monotony, and expends herself in  
ng it; and she has informed us with the same  
g tastes"; and it should seem that when we  
t go ahead we must needs move to and fro or in  
le—movement of some kind being a law of life,  
f art, which is an expression of life.

e example of Paris to which the Manchester  
refers is also the text of an article in the current  
of the Journal of the London Society. As our  
rs are aware, the society has in hand a scheme  
development plan of Greater London of the  
e." This scheme, independently of whether it is  
d out, or whether it is added to the already  
rainous scrap-heap to which architects from  
downwards have contributed, cannot be  
led as wholly barren and sterile. None of these  
es that sees the light can be made entirely in  
each of them adding some suggestion of how the  
nation should or should not be carried out (and,  
division, the Noes have it); but this particular  
e has the peculiar virtue that it is bound to  
t somebody quite directly and immediately, even  
h it may never see fruition.

it is hardly believable that its promoters will be  
ointed of their hope that the preparation of the  
'may give employment to a certain number of  
sional gentlemen who have had their ordinary  
entirely stopped or cruelly interfered with by the  
and who would work under the direction of a  
committee of experts appointed by the society  
e purpose, and who are prepared to give their  
nd experience to the work." The society hopes  
rk in close co-operation with the Architects'  
olent Society, the Artists' General Benevolent  
tion, and the Special War Committees of the  
Institute of British Architects and of the  
yors' Institution respectively.

e reference to Paris is made by Lord Plymouth,  
e spokesman of the society, with the manifest  
of allaying any fear lest a scheme initiated in  
of war should suffer from the turmoil. It is  
d that during the French Revolution "the nation  
as preserved faith with itself and mapped out a  
ful city," and that the effect is seen in Paris as  
ow it. In this article we get again the utilitarian

plea which we ourselves have confessed to having more  
than once advanced, and upon which the Manchester  
writer we have cited lays some stress. It is said, with  
entire truth, that Paris has recouped herself many  
times over for her enormous outlay on her revolu-  
tionary town-planning enterprise; and the society thus  
admonishes the sceptics: "Let no one be under the  
delusion that the Plan would not pay London, and,  
through it, the nation. London could become the  
great example of the economic value and use which  
skilful town-planning extracts out of every yard of a  
city, and of the way in which it can be worked into an  
effect of civic beauty." With this view we are in entire  
agreement, and very heartily we wish the society  
success in the ultimate as well as the immediate  
objects of its courageously conceived scheme.

As was to be expected, the London County Council  
are adjusting their expenditure to the new conditions  
created by the war. That is to say, they, in common  
with other public bodies, and with private persons who  
realise their duty to the community, will do all that is  
possible to provide the maximum amount of employ-  
ment. Schools afford the London County Council  
and other education authorities considerable scope for  
the provision of productive employment, and, realising  
this, the L.C.C. are reconsidering their agreement with  
the Board of Education to make the necessary altera-  
tions for reducing the size of classrooms, which are to  
be reconstructed for the accommodation of forty-eight  
infants and forty older children respectively, instead  
of the hordes of sixty to ninety that overtax the  
energies of the teachers in the older type of school.  
The Council were given fifteen years in which to  
effect this reform; but they now propose to accelerate  
the work by expending upon it some of the money that  
in the ordinary course would have been allocated to the  
purchase of sites. Further, the Council will prefer to  
build on sites already in their possession rather than to  
buy new ones in advance of pressing requirements.  
This is, in a sense, to mortgage the future to a present  
need; but as the need is pressing, the soundness of  
the policy cannot be questioned, and we trust that the  
Council will pursue it with vigour. In ordinary  
circumstances it is prudent to look well ahead, but at  
the present juncture there is more practical wisdom in  
adopting Sydney Smith's rule for happiness—"Take  
short views."

A long statement issued by the War Emergency  
Workers' National Committee traverses the reply  
made in the House of Commons by Mr. Harold Baker,  
Financial Secretary to the War Office, to the former  
allegations of the Workers' Committee with respect to  
the construction of military huts. It denies Mr.  
Baker's contention that the criticisms were made upon  
unfinished huts, reiterates the charge that many of the  
roofs let in the sunshine and the rain, asserts that  
the War Office specification for the huts does not  
mention lining, complains that the War Office has not  
met the statements put forward, and presses for the  
appointment of a committee of enquiry with respect  
to War Office contracts in general—which is the one  
point on which it is possible to agree unreservedly with  
the Workers' Committee. They, of the one part, and  
the War Office of the other part, are pretty much in  
the same position as rival litigants, and the serious  
differences between them can only be satisfactorily  
determined by a juridical sifting of the evidence which  
is certainly beyond the province of the newspapers that  
are endeavouring to extract a "sensation" from it.

It is not often that a presidential address is quite  
so persistently pessimistic as that which was delivered  
by Mr. Harry Allberry before the Architectural Asso-  
ciation of Ireland. It will be found on p. 346, under



the title of "The Young Architect: What Will He Become?" Its author thinks that "what will become of him?" would be a more vital question, and he shows a good deal of anxiety about the answers to it. He half admits that he has laid a good deal of stress on the gloominess of the outlook for the young architect in Ireland; but if he has given us an approximately accurate view, it is clearly time to devise some sort of remedy for conditions that are really deplorable. From the general trend of opinion in England, it seems to be quite clear that the profession throughout the kingdom is suffering severely from its adoption by the unfit, and from an insufficient recognition of the importance of social standing. As is much more clearly recognised in other professions, the young architect, like the young doctor or barrister, should be, in his early years, to some extent independent of his earnings.

### HERE AND THERE.

DURING the past week the "Londoner" who fills a column so delightfully in the London "Evening News," to our nightly content, has explained how it came about that, speaking of the King who remains in the midst of his brave Belgian Army, he called him Leopold all the time, which candid explanation has prompted the writer of "The Office Window" in the "Daily Chronicle" to admit a dreadful error of his own, the paper having gone to press with an article of his based on the assumption that Strasburg was in France. I am grateful for these admissions. They come most opportunely, for I too have to confess to an error, and I am thankful for good company when making the *amende honorable*. A few weeks ago I said something severely critical about the tune-playing that floated down at the quarter of every hour from the tower of the Royal Palace at Amsterdam, rendering the night hideous. Now comes a correction from no less a person than Herr Vincent, the carillonneur of the Palace, who says: "I have received an article from a certain 'Ubique,' in which article this person speaks about the bells of the Royal Palace in Amsterdam. I am utterly mystified as to how 'Ubique' could speak in such terms about the beautiful bells, which have a magnificent sound, are praised by every Dutchman and stranger who has heard them, and are made by the greatest of all bell-founders, François Hemony. Either this 'Ubique' must be deaf, or he has mistaken another building, perhaps the Museum, for the Royal Palace; otherwise I do not know an explanation for such terms. If 'Ubique' would visit me when I play the carillon, I am convinced he would judge quite otherwise."

This letter, from over the dangerous seas, is fittingly published here, for I have made a mistake, and who better to correct me than Mr. Vincent? Certainly when next in Amsterdam I shall have a tingling ear for the carillon of the Royal Palace. Not being able to go there in person at present, I have done the next best thing by writing to the Hotel Suisse, where I stayed, for circumstantial evidence of this chiming clock. But no reply has reached me, and I am left to my own devices and such information as I can derive from a Dutchman in London. That I am not deaf, the memory of those bells is proof enough: lying awake within sound of them, it was the only occasion when I devoutly wished I were deaf, since cotton-wool, well stuffed in the ears, would not shut out the noise. Obviously, in face of Mr. Vincent's letter, the sounds did not proceed from the tower of the Royal Palace. The carillonneur to Her Majesty Queen Wilhelmina does not stay up to play a tune at every quarter-hour throughout the night. And the Rijks Museum is too far off. The clue is afforded by the

Dutchman in London. This tune-playing he ascribes to me, comes from the tower of the Westerkerk. Now, the Westerkerk is a quarter of a mile from the hotel where I was staying, but, in the quiet of the night, the sound travels clearly across the grachten, and it happened that I could hear the exasperating music distinctly that it seemed, of a surety, to proceed from the Royal Palace hard by. This Dutchman ought to know, for he resided for some years in a house close to the Westerkerk, and the remarkable thing is that he still lives to tell the tale.

Few of us agree about architecture, and so there is plenty of scope for discussion on a hundred and one topics. I, personally, have a liking for those trellis porches that are characteristic of the nineteenth-century house, but a friend will have none of them. In particular he objects to porches of this kind on labourers' cottages. Now I happen to be in my daily journey out of town, several groups of labourers' cottages with these very porches over a man's door, and they have always struck me as being not only very pleasing in appearance, against a stuccoed wall, but also as very efficient in affording protection against the weather. Yet here is the objection against the trellis porch: *Imprimis*, the labourer is a simple person right up against the facts of life, and needing a lot for his money. *Imagin* then, says my friend, his feelings as he gazes at picturesque rabbit-hutches with which he is sometimes provided by the enthusiast. "The other day I saw some cottages having amusing trellis porches with insets like the back of a Chippendale chair in the Chambers Chinese manner—but no larder. Now the trellis porch is likely to be more interesting to the long-haired gentleman who designs it than to the labourer who wants to hang up the Sunday leg of mutton. No one could use the porch for this, but it might hit the District Visitor in the eye, with consequent loss of prestige. So the labourer takes it out of the porch using this up as firewood—after the children have weakened its fabric by feats of climbing."

Here is a sad spectacle indeed. But it doesn't tally with the porches on the labourers' cottages which I pass every day, and which, presumably, have been in occupation as such since they were first erected nearly a hundred years ago. Arising out of the consideration of them, one may affirm that solidness is not necessarily a virtue: the belief that it is has led, among other things, to ponderous handrails to stairs, clumsy skirtings, inside doors half as thick again as they ought to be, and, not least, porches built of timbers stout enough to hold up an elephant. My friend, however, remains unconvinced—it is in the nature of things that you are bound to think the other fellow has the wrong end of the stick: and he proceeds to anathematise the labourer's cottage which the long-haired gentleman has built. The stairs, in one "awful example," lead up to the scullery, which had the sink, bath and copper in it. But all these things will be altered by the War, for those of us who are too old, at forty, to fight: for like the labourer, will be up against hard facts. Soliloquising thus, my friend becomes prophetic. The new style, he says, will come in: a style of efficiency, and we shall design houses like motor-cars. "Imagine a Rolls-Royce fitted with a carburettor from the motor of a De Dion: but this is not more silly than building houses out of old barns with roofs of worn-out tiles, and like that. Except that the motor-car has to move, and the house, it is hoped, will not do so, both should be efficient first, and the Rolls-Royce has a beauty all its own, which is more than can be said of a lot of buildings." Thus have we travelled from the consideration of the trellis porch; but I hope to resume it.

UBIQUE



## THE PLATES.

*Porch, Southwood House, Highgate.*

ould be difficult to find a finer example of a late eighteenth-century porch than this. It is entirely of wood, painted white. The design, particularly the ornamented front to the hood, is in the style of Sir John Chambers, while the fanlight belongs to the period. There is a grace combined with strength in the porch extremely attractive, and the effect is heightened by the vases on dwarf pedestals that stand on each side of the steps: the whole forming a very pleasing composition. Southwood House was formerly the residence of General Wade.

*Shop-Front, Glasgow.*

is at the corner of Renfield Street and St. Andrew Street. It is carried out entirely in oak, the carving on the fascia being in that wood also. The front is part of a work of reconstruction which has caused many awkward problems, by reason, among other things, of the existence of certain old girders and beams which had to be considered in the design of the new shop-front. Mr. Percy T. Westwood, F.R.I.B.A., of London, was the architect.

*Ecole Militaire, Paris.*

illustration shows the central feature and one of the wings of this fine building, facing the Champ de Mars. The original building was erected from Louis XV's design in 1752-1763, in the time of Louis XV., and many additions and alterations were made in subsequent years, the wings having been added in 1780. The principal feature of the main façade is the magnificent central pavilion with its quadrangular pediment. There is a great scale about this.

*Central Station, Newcastle-upon-Tyne.*

John Dobson, the architect of this station (born in 1865), Mr. Richardson, in his "Monumental Architecture in England," gives the following interesting particulars: "At the age of fifteen he was a pupil of David Stephenson, then a leading Newcastle architect, after which period he studied in London under John Varley, the water-colourist. His first metropolitan experience was his only experience of travel, and was exceedingly fruitful, because he became acquainted with St. Paul's Cathedral and other more important Classical buildings. His greatest achievement was the Central Station at Newcastle, completed in 1892 and opened by Queen Victoria and the Prince of Wales. His monument is the city of Newcastle-upon-Tyne, the greatest part of the public buildings and many of the finest streets of which were planned by him. Unfortunately, owing to expense, the Corporation could not accept his designs in entirety, otherwise Newcastle to-day would be the best city in the Kingdom. . . . With regard to the design of the Central Station, the effect the massing produces on the mind is one of simplicity, and, moreover, a simplicity which is maintained even to the design of the smallest details. When approached this problem with directness, suggesting a great arcaded loggia as the central feature of an extended front, with balancing wings and arched bays." We regret we are unable to trace the drawing of the student who made the drawing of the end of the station which we illustrate.

*The Uffizi, Florence.*

plan of the Uffizi comprises a long, narrow courtyard extending almost due north and with a corridor on either side; the portico next to the courtyard forming a terminal feature. The building was erected from Vasari's design in 1560-74, and was originally intended to be used as Government offices. The left wing is now, however, occupied by the great picture gallery and the national library,

while the right wing is used for the storage of archives and as the post-office. In the niches of the piers that divide the colonnades into bays are statues of famous Tuscans. A detail of the courtyard elevation will be published next week.

*French Empire Chair.*

This is an arm-chair of the same model as that illustrated last week; a very serviceable model.

*Working Drawing of Main Entrance and Vestibule Doors, King's College Hospital.*

The main entrance doors of the new King's College Hospital at Denmark Hill (Mr. William A. Pite, F.R.I.B.A., architect) are of teak, the surround being of Portland stone. The vestibule doors are also of teak.

## CORRESPONDENCE.

*Painting in War Time.*

To the Editors of THE ARCHITECTS' AND BUILDERS' JOURNAL.

SIRS,—It is estimated that there are at the present time as many as forty per cent. of the London operative painters out of work, a percentage, it need hardly be said, far in excess of the normal for the time of year. Much distress exists among this class in consequence, and unless work is soon forthcoming the distress will grow rapidly.

Those who control property, whether as owners, architects, solicitors, or estate agents, as well as public and parochial bodies, can render valuable assistance in alleviating this distress, without trespassing upon their claims for charity, if they will forthwith give orders for such painting and decorating as may be required.

By doing this they will not only render assistance of a very practical kind, but will themselves directly benefit by the lower prices which most firms employing painters are willing to accept at this juncture in order to keep their men in employment.

Apart from work of a decorative character, there is a vast amount of painting which is urgently required for purely protective purposes; to neglect having this done means the promotion of decay in the building, with a subsequent heavy loss to the owner.

The prices of the most important products used by painters, such as white lead, linseed oil, turpentine, and paper-hangings, are practically the same as they were at this time last year, and the fact that master-painters, in their desire to keep their men employed, are willing to cut their margin of profit to the extreme limit, means in effect that the present cost of decorative work is as low as, or even lower than, what it is in normal times.

It is certain that many hundreds of thousands of pounds' worth of painting and decorating work might well be proceeded with at the present time. By giving orders for this work to be carried out immediately property owners would do much good to the community.

The London Association of Master Decorators,  
A. DAVIDSON, *Secretary*.

*Cost of Workmen's Cottages.*

To the Editors of THE ARCHITECTS' AND BUILDERS' JOURNAL.

SIRS,—May I correct an error in the description of the cottages at Tadworth illustrated in your issue for last week.

The contract price of £1,478 includes water-closets and laying on the water to same, and for everything with the exception only of fencing and garden formation.

C. H. B. QUENNEL, F.R.I.B.A.  
21, Great Peter Street, Westminster, S.W.



## THE YOUNG ARCHITECT: WHAT WILL HE BECOME?\*

BY HARRY ALLBERRY, A.R.I.B.A.

YEARS ago a certain placard set before our eyes the two possible developments of the youth who indulged in, and the youth who abstained from, strong drink. We may adapt that to our own professional outlook. "The Young Architect: What Will He Become?" or, still more important: *What will become of him?* We may exclude from our thoughts him whose name is destined to be wreathed with honours and degrees, and him whose career may be popularised by certain eccentricities of genius. Men of supreme talent in the art of architecture, or the science of advertisement, are, perhaps, comparatively few in number. We will deal rather with one, let us call him, in no way offensively, a "mediocrity," to whom art will never appear with a very large A, but for whom drain-testing will possess a very big D—one may hope £ s. d. In the absence of independent income, and without friends of rank or influence, such a youth faces the world unarmoured and truly seeks a position of risk—and, be it frankly said, of much honour—when he joins the battalions of architects, made and in the making, in these islands. Our friend may have shown some juvenile skill with the pencil, have earned some word of praise from a weary art master in the local technical school, or, like one of the recent presidents of the R.I.B.A., have had a taste for building rabbit-hutches and for drawing tracery windows with a pair of compasses. He may have read that architects are not as other men, and been tempted by a flattering family to take up a profession which is a tripartite of art, science, and business, at once a delight and a delusion, an alluring mistress demanding lifelong attention for an infrequent and generally frosty smile. Assuming any or all of these conditions, we may proceed to the day when our friend, or, rather, our friend's parents, have parted with a substantial cheque, and he, with shining instruments, well sharpened pencil, and virgin india-rubber, becomes a cadet in our ranks. There for a space of three or four years will we leave him, passing his days of labour and of play, for student days are vastly alike; they vanish quickly, and we heed not their passing. Fortunate is he who, during these few years, has some prevision of the difficulties of the future, and a principal who fulfils his solemn engagement to train a lad to fight his way upwards, for then he will in some measure realise that while architecture has its fascinations it has its drudgery. He will understand what the next decade must mean to him, and will be able to select the rightful road of the two that face most pupils when they stand alone and perplexed, their apprenticeship served, and their future unassured.

*The Two Roads.*

One of the roads appears easy, the other is a very broken road, in which he may not linger at the wayside in sport or ease, but in which he must press constantly on, with eyes and ears ever open, with hand and mind constantly engaged, not, indeed, to gain wealth and notoriety, but merely to live later in some modest degree of comfort. In this road there are too frequent intervals, alluring avenues, leading

to the other and easier path, which is a way of undoubted fascination, for along it there is great opportunity for leisure and comparative peace of mind. But, unfortunately, this road is short, and the wayfarer who has selected it finds himself in that hopeless cul-de-sac of our profession, the architectural draughtsman, whose rival is a mechanical printing machine, whose salary would not be offered to a competent artisan. We will not deal with this aspect of our own profession just now, although it is one which might commend itself to the urgent attention of those who form the cabinet of architectural politics. We prefer to imagine that our mediocre friend, faced with the first serious crisis of his life, essays the ruder path, traversing alternately the mountain peaks of elation and the long gloomy valleys of hopelessness to the culmination of successful architectural practice.

During the years between twenty and thirty our friend must necessarily keep hard at it. In the office and out of it, in city and in village, in the work that is daily passing through his hands, and from such sought-out sources as books and classes, alone or in the companionship of other students, he must unceasingly prepare himself for that end to which he aspires, making friendship by his honest dealing, reliability and sociability, friends who, when they in turn attain positions in other ranks of life, will stand him in good stead.

The evil of a presidential address to a student association is that it may savour something of the pulpit, where one speaks and others may not hit back. But perhaps you will bear with me if I dwell over-long on a period through which many of our members are passing or are about to pass, and from which others to their gladness or sorrow have but yesterday escaped. And this I say in all earnestness to Irish students and assistants particularly, that any slackening of energy between the ages of twenty and thirty can seldom be recovered.

*The Outlook for the Young Irish Architect.*

Let us think for one moment of what is happening elsewhere, of the great architectural schools in the kingdom, turning out year by year their scores of young architects (some will, I know, call them pseudo-architects), who pass from country to country, learning more of their craft, sparing themselves nothing in their effort to qualify themselves for the future. These men are, and will remain, the competitors of the present generation of Irish students, and our friend will find them jostling him at every turn—men with a well-designed system of training readily available and accepted by them with eagerness and to the full. Of course, there are determining factors in success other than mere application; for instance, one's ambitions, limitations, and opportunities. Without ambition the otherwise most perfect architect will fail, and with it the man of lesser ability succeed in some measure. For ambition rightly directed means tenacity of purpose, a divine discontent which, within wide limits, makes for progress. Ambition for success, for slow and certain success, ensures that each minor duty is well executed, bringing with it the after-glow of good performance and aiding that

most difficult of tasks "to keep the b... which the soul is competent to gain."

Limitations may be likened to barnacles which impede ambition, unlike the barnacle, they can be readily removed. Fortunately, limitations are not so much evidence in early life, and in youthful ignorance we are often able to overcome difficulties which would appear or leave us gasping in later years. Not until middle age that we fully and fully realise the line beyond which we not pass, unless, perhaps, by most strenuous and exhausting endeavour. Students with high hopes have no limitations, their eyes and minds embrace the uttermost confines of architecture. Therefore should they enjoy the false horizon of youth's inverted field-glass before they take to the smoked spectacles of years.

Lastly, and so important—opportunity. Without ambition we shall not seize when they arise; without ability we cannot master them; yet, lacking opportunity, ambition is deadened and ability expends itself in vain. Therefore, opportunity must be watched for in this country, for there are but few, and those who seek them many.

The last census figures show that we have 405 members of the architectural profession and 1,229 civil engineers in Ireland, striving to make a living. Many of the latter are, of course, doing architects' work when occasion arises.

*The Troublous Sea of Practice.*

If you have read Swift's "Imitation of Horace" you will remember the description therein of a comfortable existence

"I've often wished that I had clear  
For life six hundred pounds a year.  
A handsome house to lodge a friend,  
A river at my garden's end,  
A terrace walk and half a rood  
Of land set out to plant a wood."

Now, I am going to take a much higher standard than that: You will admit that £150 a year is not a very tempting inducement as a guerdon for many years' school and professional training; yet to achieve that for these colleagues of ours would be at 5 per cent. commission an expenditure of just five millions annually on structural operations—operations, be it remembered, in which professional assistance is employed. And here, with these horrible statistics, we may take up the final chapter of our mediocre friend's career, after ten or twelve years as an assistant, he will leave the comparative snugness of his harbour walled with a weekly salary, to face the sea of professional practice. It is a changing sea as it is—calm and smooth to-day; surging to-morrow with combatants, contractors, outraged and outraged clients, querulous clerks of works, assertive agents with callers who want everything, and more who want nothing, and, worst of all, a sea traversed by shoals of idleness, when work is scarce, when there is little draughtsmanship and drafts—shoals of such an extent that one wonders whether they will ever skirt the shore and reach a region of constant practice, and long for the supposedly restful haven of Government or municipal post. What does our friend find when he embarks on this sea? He is at once in the midst

\* Extracts from a Presidential Address delivered before the Architectural Association of Ireland on November 3.



us competition with his fellows; for, as we said, the opportunities in Ireland are. The era of church building and comitants for the moment is practically over. There are left dispensary residences, schools, labourers' cottages, and sprinkling of domestic and mercantile buildings. Everyone is apparently of money, or says he is; nearly all are getting ninepence for fourpence and are glad if they only get sixpence. Against his competitors he will find unmen far too numerous for our who, owning a bowing acquaintance with a two-foot rule and with an and sometimes an extremely close grip of a pencil, dot the countryside with meaningless creations. If we may be to Providence that our efforts possess few elements of permanent construction or material. A friend will find such men tolerated by the public, and their ultimate extinction is hampered for by a profession proud of its past and fearful of its future.

#### *Problem of the Minimum Fee.*

will learn, tyro as he is, that he must charge a minimum fee for his work, a fee which is also generally the maximum of what he can get from age, experience, and ability. He is numbered amongst the front ranks of his competitors. The last and most trying conditions are known in other professions, as I have already on one occasion pointed out. The aspiring medico and the Merriam specialist to charge the same fees, the horn in the law library and the King's Counsel to require the refreshers for their briefs, it is certain that the junior ranks of the legal and other professions would more acutely feel the silent staircase, the seldom door, the empty letter-box, and the empty vacancy of a clientless office, conditions not infrequently known, as we are fully aware, to young architects. It is my opinion, high time that those who should be by the exercise of some business rise superior to the minimum fee, if I may say so, "give the young chance!" Otherwise it is no use for the architectural Stiggins and the man who has gained his bread and butter invariably to avoid temptations to offer themselves in specious guise. It will be said, of course, that an architect should think more of his art than of material existence. I must confess that I am a Philistine to subscribe to a theory only with many reservations. Generally, it is propounded either by those who have never a moment's thought as to the sequence of their meals or the condition of their bank balances, or by some enthusiast who can live on a shell of an oil rag and whose work is as evanescent. But those who are thinking of the mediocrity, who will do nothing startling, but who put his best into what he does, an architect which means strenuous work on his part and requires help from his situated colleagues, not obstruction, not exasperation.

#### *The Brighter Side.*

may rightfully ask for some high picture painted with a heavy brush and with what you consider to be more tints. It is neither unkind nor, however, to remind the students of the fact that the profession upon which we have embarked makes such heavy demands on their ability and patience. It is, however, not improbable, and the prospect certainly encouraging, that those

who are now passing through their apprenticeship, or through the subsequent fateful decade, will eventually enter on a goodly heritage. I refer to the growing interest that is being taken in various social problems, the attention that is being given to the housing of the poorer classes, the recognition of a need for better education and for improved conditions under which children can be taught, and the slow, penetrating knowledge that disease once regarded as a necessary evil can be successfully combated by hygienic surroundings. Of such importance also is the awakening interest in town-planning and the "city beautiful," which, although still in the yawning stage, will develop a lusty liveliness, possibly causing surprise to those who languidly think that cities are for them and are quite oblivious that they are for the cities. These movements, as they become more vigorous and more democratic, more practical and less garlanded with platform rhetoric, should give scope for many of our craft—modest compared with other work which they see around them, and of which they read in their somewhat unfrequent visits to our library, but inspiring in the results they may bring to those of our fellows whose present acquaintance with architecture is a room in a tenement or a squalid cabin on a bog. Thus to our students may come the opportunity, not perhaps to build "the churches with spire steeples, pointing as with silent finger to the sky and star," the gorgeous palace, the solemn temples of law and government, but to house their countrymen in dwellings well planned and stoutly built, health-giving to those who abide in them, and a delight to those who pass them by.

## SOCIETIES AND INSTITUTIONS.

### *Architects' and Surveyors' Approved Society.*

At the general meeting held on December 1, at the premises of the Architectural Association, in Tufton Street, Westminster, after Mr. Ernest Newton, F.R.I.B.A., president of the Society, had referred in terms of regret to the decease of Mr. Edward Wooley, the late president, who had given such substantial support to the Society, the secretary, Mr. F. R. Yerbury, presented the annual report, in which it was stated that since December last 149 new members had been enrolled, making a total of 2,157 since the Society's foundation. Of these they had lost 298, the majority of whom had passed beyond the scope of the Act, and the present membership was 1,859. The sickness experienced during the year had been very light, amounting to 146 claims by men and two by ladies, while, with the exception of one or two cases, the illness had not been serious. It was of interest to note that no fewer than 187 members of the Society were serving with the Forces. The Committee appointed by the Architectural Association to look after the welfare of those who joined the Colours had very kindly undertaken to include the members of that Society in their scope. Generally speaking, the whole machinery of administration had been running very smoothly, but the National Act was full of complication, and the Committee hoped that the members would realise the serious consequences likely to arise from neglect to send in cards, etc., promptly. A scheme for voluntary insurance—quite apart from the National Act—had been formulated, which offered a very attractive table of insurance; but, unfortunately, it had not

been sufficiently supported to enable the Committee to proceed with it. Members had connected the scheme with the compulsory National Insurance, and would have nothing of it; but later on the Committee hoped to complete the scheme.

The treasurer (Mr. Philip E. Webb) called attention to a statement of accounts issued, which was very satisfactory. On the benefits account the saving over the actuarial estimate was £798 1s. 2d. for men and £8 7s. 3d. on the women's account. They would realise that this was purely a provisional income and expenditure statement, as the actual valuation of the Society could not be given till the Government had completed their valuation about next July. The cost of administration last year had only amounted to 2s 8½d. per head, against a Government allowance of 3s. 5d., but this amount tended to increase with the increase of work.

The Chairman, in moving the election of the Committee of Management, said it was obvious that the Society was in a very flourishing condition, and it must be a great satisfaction to those who worked so hard for its formation to know that their labours had met with a just reward. They could certainly congratulate themselves that the members of the profession were so healthy; the sickness had been very light, and probably the Society would be thus able later to give better benefits to their weaker brethren in the profession. The Benevolent Fund was a very good thing. It was removed from the control of the State—perhaps he might be allowed to say that was another excellent thing. Generally speaking, its benefits were for those who had been in practice and fallen on bad times, and it enabled them to give in some cases of sickness extra benefits to those allowed by the official schedule. He thought they would agree that the Society was doing an excellent work, and that its success was due in no small measure to the efforts of the Committee of Management.

Mr. George Corderoy said it was peculiarly gratifying to those who had ventured a forecast of the advantages that would accrue to the younger members of the profession in joining the Society to learn that their hopes had been agreeably justified. They estimated that the men would pass out at about thirty-five years of age, and that forecast, though only based upon general experience, had been largely fulfilled. They also reckoned that, the profession being a healthy one, the sickness would be low; there had, in fact, been a saving of approximately £800 on the actuarial estimates.

### *The Builders' Benevolent Institution.*

It having been decided that the usual annual dinner would not be a suitable medium through which to appeal for funds, this function has been abandoned for the present year, particularly as the president, Mr. George R. Holland (of Messrs. Holland and Hannen and Cubitts, Ltd.) is away serving as Major of a battery of artillery. The Builders' Benevolent Institution is the only organisation in this country that renders assistance to necessitous master-builders or their widows. The Institution distributes about £2,000 per annum to sixty pensioners, and the only reliable income it has is £700 from invested capital and £300 from annual subscriptions. The deficiency of £1,000 has always been collected at the annual dinner. As this will not take place this year, an appeal outside is now being made, and the attention of readers is specially directed to it. Of the £1,000 required, £600 has already been received, leaving the sum of £400 still



to be obtained. Donations should be sent to the Treasurer, Builders' Benevolent Institution, Koh-i-Noor House, Kingsway, London, W.C.

#### Leeds and West Yorkshire Architectural Society

The opening general meeting was held on November 19. The president, Mr. G. F. Bowman, in the course of his inaugural address, referred to the Society's change of title from the Leeds and Yorkshire Architectural Society to the above. This came about owing to the R.I.B.A. considering the question of the areas allotted to the various provincial societies. They considered that in some cases portions of the areas thus allotted were outside the range of influence of the society in whose area they then were. Therefore, York, Sheffield and Leeds were asked to endeavour to arrange distinct boundaries to the areas over which it was thought, in the best interests of the societies concerned, they could work. An endeavour was made to form a new society for Hull and district, but without success, and finally it was decided that York should take the East and North Ridings of Yorkshire, Sheffield a portion of the south-west of Yorkshire, with portions of Derbyshire and Lincolnshire, and that Leeds should retain the West Riding of Yorkshire generally.

#### Paint and Painter Work.

The fifth meeting of the Glasgow Royal Technical College Architectural Craftsmen's Society was held in the society's room on Friday, November 20, when Mr. Robert Park gave a lecture on "Paint and Painter Work." The origin and process of manufacture of several materials used in painter work were traced, and the adulterants used in order to cheapen the quality were described. Chemical tests were shown for the detection of such adulterants, and the effect of town atmosphere on different paints was shown. The lecturer gave details of experiments carried out in the Technical College in order to find a good fume-resisting paint.

#### Building By-laws in Rural Areas.

At a meeting of the Council of the Institution of Municipal Engineers on November 25, a resolution was passed viewing with concern "the proposed introduction of undue and unnecessary elasticity into the operation of building by-laws," and expressing strong opposition to the Public Health Acts (Building By-laws) Amendment Bill. "The erection of buildings in rural districts with any kind of material, and the possible extension of this concession to boroughs and urban districts, will in effect operate to the detriment of the districts affected. The Memorandum to the Bill says: 'Above ground a man will be free to build as he likes, so long as he does nothing contrary to purposes of health,' and it is felt that these statements are in direct contradiction the one to the other. The only good point in the Bill is the discouragement of the crowding together of cottages, but this is provided for in existing Acts. The Council foresee that if the Bill becomes law, the important and very necessary work of the building inspector in rural districts will practically cease."

#### The Model Form of General Conditions of Contract.

A paper on this subject will be read before the Society of Architects to-morrow (Thursday) evening, December 10, at 7.30, by Mr. E. C. P. Monson, F.R.I.B.A., president of that Society.

## ENQUIRIES ANSWERED.

#### Liability for New Boiler under Tenancy Agreement.

SUBSCRIBER writes: "A tenant takes a house on a three-years' agreement. Belonging to, and a fixture in, the house is a heating apparatus worked by an independent boiler in the basement. This apparatus was tested and found to be in working order when the tenant took possession, and throughout the first and ensuing winters it was used and showed no signs of leakage, which, however, has now developed. The boiler has been in use for seven years. The following are clauses in the agreement: 'The tenant agrees . . . also not to commit any waste, and to keep and at the end or other determination of the said tenancy to deliver up possession of the said messuage and tenement, fixtures, and premises in good and tenable repair, fair wear thereof and damage by fire, storm, and tempest only excepted. And the said tenant also agrees to make good, repair, and replace all such stoves, fittings, ranges, fixtures, glass, paper, paint, etc., as shall or may be broken, lost, damaged, destroyed (except as aforesaid), in consideration of which the said landlord agrees to do all necessary repairs.' A new boiler is required. Who is responsible for the cost of this, the landlord or the tenant?"

—I am of opinion that the repairing covenants quoted fully cover the repair or replacement of this boiler. The tenant must therefore carry out his undertaking to "keep" and to "deliver up" . . . "in good and tenable repair" the heating apparatus and boiler, even though it necessitates that he should purchase a new one. I do not think that the "fair wear" clause would protect him, because a boiler should certainly last more than seven years, unless, indeed, the local water be of a very soft character. F. S. I.

#### Contractor's Charges.

X. writes: "A contractor is instructed to carry out certain works at a remuneration of 10 per cent. on the actual cost. Is he allowed to make charges for use of plant, supervision, and own establishment expenses in addition to the actual cost of wages and materials?"

—Yes. If actual cost means anything, it must mean the total net cost, and if remuneration means anything, it must be the sum payable to the contractor for his personal services, the risk he undertakes, and the interest on the capital he advances and uses in carrying out the contract. The total net cost includes: The net cost of materials and the freight, delivery, and hoisting charges connected therewith, delivered *in situ*. The net cost of labour, including fares or other petty cash expenses and foreman's superintendence, also cost of insurance against Workmen's Compensation risks and the National Insurance Act (Parts I. and II.), handling and preparing machinery and fixing the said materials, cost of sharpening tools, etc. A proportion of the cost of the builder's establishment charges, such as rent, rates, clerical staff, vehicles, etc. A charge for use and waste of plant used for the purposes of the contract. Charges for artificial light, water, messhouses, and fees to local authorities. It is upon the total net cost ascertained after this fashion that the remuneration referred to must be calculated. Where a proportionate cost only can be charged, a percentage should

be agreed at the outset to avoid later, and if interim payments are for interim accounts made up in the manner as the final account should be presented on each occasion, so that no understanding can arise as to the final ultimate account, nor as to that the charges from first to last are on a uniform basis. A. G.

#### Number of Bricks in a Rod.

K. G. writes: "In Specification, 'Memoranda,' is given the equivalent of one rod of reduced brickwork (inter alia) equals 4,350 bricks, 38 lbs of cement, and 1 7/8 cub. yd. of sand. What size bricks are calculated? The bricks used in the Midlands are considerably thicker than those used in Norfolk. Sizes vary in other localities also."

—The standard rod of reduced brickwork is 272 ft. super. of 1 1/2-bricks which contains 4,350 London stocks, bricks average 8 3/4 to 8 7/8 in. by 4 3/8 in., by 2 5/8 to 2 3/4 in., and with mortar joints make up about 9.4 1/2 in. by 3 in. Strictly, a rod is 16 by 16 1/2 ft., equal to 272 1/4 sq. ft., and by 13 1/2 in. thick would give 529,250 in. Dividing this by 121 1/2 cub. in. volume of one brick and its proportion (joints) gives exactly 4,356. Most bricks are larger than those made near London, and run to 9 in. by 4 1/2 by 3 in. without the mortar, so that of brickwork in these bricks would contain only about 3,660. H.

## NEW FELLOWS AND ASSOCIATES OF THE R.I.B.A.

At last week's meeting of the Royal Institute of British Architects the following Fellows, Associates, and Hon. Associates were elected:—

#### Fellows.

|                               |                            |
|-------------------------------|----------------------------|
| J. Stacey Davis (Plymouth).   | Cecil A. Sharpe (London).  |
| J. M. Dossor (Hull).          | Austin (Warrington).       |
| Gilbert Fraser (Liverpool).   | (Colombo).                 |
| C. M. Hadfield (Sheffield).   | E. C. Bewlay (Birmingham). |
| Charles Kempson (Leicester).  | C. W. Bowles (London).     |
| H. Clapham Lander (London).   | S. M. Brooks (London).     |
| Hurley Robinson (Birmingham). | M. T. E. (London).         |
|                               | J. C. Wynnes (Birmingham). |

#### Associates.

|                                  |                              |
|----------------------------------|------------------------------|
| R. Anderton (Pres-ton).          | W. J. Isaac (York).          |
| R. A. Barber (London).           | E. R. Jarrett (London).      |
| H. P. Bryant (Southampton).      | Bernard Jessop (Birmingham). |
| A. S. Burnett (Southampton).     | A. F. Kaltenbach (London).   |
| G. W. Callender (London).        | F. L. Kruck (Leeds).         |
| C. H. Calvert (Nottingham).      | G. H. Ledger (London).       |
| W. L. Clark (London).            | W. L. B. Leech (London).     |
| H. T. Cooksey (London).          | E. J. Macrae (Leeds).        |
| C. A. Dickeson (Auckland, N.Z.). | S. R. Miller (Leeds).        |
| E. H. M. Ebbs (London).          | A. B. Peermans (London).     |
| J. C. Fowell (London).           | T. L. Perkins (Kong).        |
| W. H. Godwin (Bewdley).          | R. M. H. Philips (London).   |
| D. M. Griffin (Liverpool).       | G. W. Ridley (Grinstead).    |
| W. H. Harrison (Whalley).        | C. G. Ripley (London).       |
| Frank Hearne (Oldham).           | H. E. Rolley (Leeds).        |
| J. Hembrow (London).             | A. Silcock (Birmingham).     |
| E. J. Hickman (Birmingham).      | C. E. Stafford (London).     |
| Percy Howard (Manchester).       | G. Stanley (London).         |
| Basil Hughes (London).           | bridge).                     |
|                                  | H. S. Taylor (Leeds).        |
|                                  | G. G. L. Tyte (London).      |
|                                  | H. G. Wadsworth (Blackpool). |
|                                  | A. J. Wood (Leeds).          |

#### Hon. Associate.

Sir Laurence Gomme, J.P., F.S.A.



## SPECIAL LEGAL REPORTS.

**What is the Meaning of Single Private Drain?***Hull Corporation v. North-Eastern Railway Company.*

November 27. Chancery Division. Before Mr. Justice Lawrence.

This was an action by the Hull Corporation against the Railway Company to establish that the defendants were liable for a pair of a 12 in. drain connecting certain property with a sewer running down Messle Road. Defendants contended the drain was a public sewer, repairing the corporation as the local sanitary authority.

P. D. Lawrence, K.C., appeared for plaintiffs, and Mr. Ryde, K.C., for defendants.

Lawrence said the only question of law between the parties was whether or not there had been dedication of this road. He contended that it remained a single private drain, repairable by the owner of the premises.

Lordship: Does "single" mean a private drain?

Lawrence said his submission was that it did not, but "single" was used in contradistinction to two or more drains.

Ryde said his contention was that it was not a single private drain within the meaning of the statutes. Under section 9 of the Public Health Act of 1903, a private drain was one that drained more houses belonging to the same owner or owners, but this was an exception of an exception which was still subject to the drainage of buildings, and the submission was that, as soon as it did anything but a building it became a street. Here there were surface drains draining the road into this 12 in. drain, and that he submitted was of itself sufficient to take the drain out of the category of a single private drain within the exceptions found in the Act.

Evidence having been called in support of his contention that the street had been dedicated, his lordship reserved his decision.

**Unlawful Trespass and Seizure of Builders' Fittings.***Samuel v. Costin.*

November 30. Official Referees' Court. Before Mr. Mackenzie.

This was an action in which Mr. M. M. Costin, of Willesden Lane, claimed damages against Messrs. Costin, builders, of Harrow, for the removal of fittings from two houses in course of construction at Eastcote, near Harrow. Costin claimed that the plaintiff, Mr. Samuel, had received certain money to builders of the houses, who did not complete the work. Costin had failed to pay the defendants for goods supplied by them for the buildings, and defendants, when the work was disturbed, entered the premises and took a number of the fittings, including iron doors, seven of which were fixed, a lavatory basin, some furnace fittings, a boiler, a water waste preventer, and other articles of the total value £118.

There was also a claim for making good the damage caused by the removal. Defendants admitted the removal of the fittings, but disputed the value claimed by the plaintiff in respect of them. In addition to the value of the fittings the plaintiff pleaded that he was entitled to substantial damages for the illegal entry, but, in reply, the de-

fendants said that the things taken they had themselves supplied, and that they had not been paid for them. The defendants paid £14 13s. 3d. into Court.

Evidence was given on both sides. The Referee, in giving judgment, said that, although the defendant had entered the premises through a broken glass door, it did not appear that he knew the plaintiff had taken possession. He had authority to take away the goods for which he had not been paid, but it was alleged that he had taken other things as well; the evidence, however, did not bear out this allegation, and he was satisfied that the defendant only took that which he admitted having taken. Undoubtedly there had been a legal trespass, but having regard to the circumstances under which possession was taken he would only award 40s. damages. For the goods taken he thought £12 would be sufficient, which would bring his award up to £14. That amount had been paid into Court, and he would order it to be paid out to the plaintiff. He also ordered that the general costs of the action after the date of the payment into Court should go to the defendant, and that the plaintiff should have the costs down to and including the date of payment into Court.

**Paving Dispute—Powers of Arbitrator.***In the Matter of an Arbitration, under the Arbitration Act, 1889, between**Stoker and the Mayor and Corporation, Morpeth.*

November 26. Court of Appeal. Before Lords Justices Buckley, Phillimore, and Pickford.

This was an appeal by the respondents, the Corporation of Morpeth, from an order of the Divisional Court of the King's Bench Division, which set aside an award of an arbitrator in a dispute between the Corporation and Mr. E. A. Stoker, of Newgate Street, Morpeth, regarding the paving of the Fox and Hounds yard at Morpeth.

The appeal was dismissed, the Court holding that the arbitrator had exceeded his jurisdiction in deciding that the paving was done to a "street not repairable by the inhabitants at large," and that there could be no arbitration, as Mr. Stoker had effectually withdrawn his notice of dispute.

Defendants said they did the work in a reasonable manner.

At the conclusion of the plaintiff counsel's speech an inquiry was made on behalf of the plaintiffs if the defendants' offer of £10 as compensation for any nuisance they had suffered was still open. Mr. Blanco White said it was, but his client would not pay any of the plaintiffs' costs. Plaintiffs then agreed to accept that sum, and judgment was entered for the plaintiffs for £10, but without costs.

**Claim Against Builders and Contractors by Sub-Contractors***Williams and Co. v. Arnold and Sons.*

December 1. King's Bench Division. Before Mr. Justice Rowlatt.

This was an action by Messrs. John Williams and Co., of Dinorwic Slate Wharf, Rotherhithe Street, London, against Messrs. H. Arnold and Sons, builders and contractors, of Printing Office Street, Doncaster, York, to recover the sum of £118 balance of an account of goods sold and delivered, and work and labour done, and materials supplied under

a contract with the defendants at an asylum at Colchester, Essex.

Defendants, by their defence, said the amount paid the plaintiffs was the full amount to which plaintiffs were entitled, and they set up a counter-claim.

Plaintiffs, in their reply, denied that the amount paid them settled their account, and they disputed the counter-claim.

Mr. Douglas Hogg appeared for the plaintiffs and Mr. J. A. Compston, K.C., and Mr. Gingell for the defendants.

It appeared that the contract price was £2,000, and about £1,900 had been paid, leaving a balance of about £118 in dispute. Questions involved were as to whether there should be a reduction because of the size of certain slates that were used, whether the defendants were entitled to certain discounts for complying with particular conditions in the contract as to payments, and whether the plaintiffs were entitled to interest. The defendants were the builders and contractors for the asylum, and they sub-contracted with the plaintiffs for the slating and tiling work.

Mr. Hogg argued that under his interpretation of the contract his clients were entitled to the amount they claimed, and he asked for judgment for the sum in dispute.

Mr. Compston contended that it was agreed that smaller slates should be used on the building and that the plaintiffs should not claim in the price for the larger slates. He submitted that under the terms of the contract the defendants were entitled to certain discounts; whilst on the other hand, as payments were up to date, the plaintiffs were not entitled to the interest they claimed. His contention was that the defendants had interpreted the contract in a right way and carried it out, and that accordingly there was nothing due to the plaintiffs.

His lordship said he proposed to state the conclusions at which he arrived on the construction of this contract in regard to the points in dispute, and leave the matter to be adjusted between the parties if they accepted his decision as final. The first question was as to whether the plaintiffs were entitled to be paid anything more than they had been paid in respect of the squares of slating. On this point he did not think that the plaintiffs were right in their contention on this clause, and therefore his decision on the point was in favour of the defendants. The next question was, as to the interest claimed, and on that point also he came to the conclusion that the defendants were right. Now there remained the substantial and difficult point in this case, viz., the question of discount. Under all the circumstances and in view of the arguments he had heard he came to the conclusion that the plaintiffs were right on the point, and that they were entitled to recover sums deducted as discounts.

Judgment for the plaintiffs for £88 9s. and for 80 per cent. of the costs of the action.

**Builder and Council: Contract Trespass.***Porter v. the Tottenham Urban District Council.*

December 1. Court of Appeal. Before Lords Justices Buckley, Phillimore, and Pickford.

This was an appeal by the plaintiff from a decision of the King's Bench Divisional Court, composed of Justices Ridley and Bankes, reversing a decision of the official referee awarding damages to plaintiff, a



builder, on a contract to build a school for defendant's council.

The case, it was stated was distinguishable from the authorities in that the failure of the builder to carry out his contract was due to the interference of a trespasser.

Mr. Justice Ridley, in the Divisional Court, said that Court held that a building owner could only be said to ensure that prompt possession and use of the site should be given so far as his own acts and ability were concerned, and interference of a trespasser was as much beyond the control of the building owner as any other unforeseen occurrence.

The Appeal Court upheld this view and dismissed the appeal.

## NEWS ITEMS.

### *Middlesex Regiment Memorial.*

A memorial tablet, or roll of honour, is proposed to be affixed to the Middlesex Guildhall, Westminster, in memory of the officers and men of the Middlesex Regiment who have fallen in the war.

### *New Stationery Office as War Hospital.*

The new building erected for His Majesty's Stationery Office in Stamford Street, London, is to be utilised as a war hospital. On each of the five floors there will be accommodation for about 360 beds; each floor will be a complete hospital in itself, with its own operating theatre and staff.

### *Better Bylaws.*

At a meeting of the Executive Council of the Yorkshire Federation of Building Trade Employers held at the Town Hall, Wakefield, Mr. T. Ledgard, of Leeds, presiding, the Mayor of Wakefield (Mr. E. Stonehouse), welcoming the Federation to the city, said that Wakefield Corporation had just completed a revision of the by-laws, and he was happy to say that the alterations had made the conditions easier for builders.

### *Metropolitan Water Board's New Central Offices.*

At a special meeting of the Metropolitan Water Board the tender of Messrs. T. W. Heath and Son, amounting to £110,004, was accepted for the erection of the board's new central offices in Rosebery Avenue. Submitting the recommendation, the General Purposes Committee reported that the architect's original estimate of £94,800 was made prior to the outbreak of hostilities, and, so far as building was concerned, the war had caused an increase in cost which might be as much as 15 per cent., while the necessity of carrying the concrete foundations deeper than had been anticipated would entail an increased expenditure of £2,500. Since the war began it had also been necessary to add £1,500 for oak fire protection doors required by the London County Council, and a further £80 was wanted for special work in connection with a leakage from the filter beds. Mr. J. W. Restler, deputy chief engineer, has been appointed chief engineer to the board, to fill the vacancy caused by the death of Mr. W. B. Bryan. Mr. Restler was for twenty-one years engineer to the Southwark and Vauxhall Water Company.

### *Water-Colours and Engravings of Buildings in the War Area.*

At the Fine Art Society's premises, 148, New Bond Street, a number of water-colour drawings, etchings, and engravings of buildings in the war area in Belgium and France are on exhibition. Several of them are for sale, the proceeds to go to

the Relief Funds, and among these are some delightful water-colours by Mr. Ernest George, A.R.A., ranging in price from seven to ten guineas.

### *Effect of European War on American Schools of Architecture.*

The War has played havoc with the American Schools of Architecture this year by calling back to France practically all of the leading professors of design in these schools. Cornell has thus, temporarily at least, lost Professor Georges Mauxion, one of the ablest of these teachers. To meet the position, Professor Ely Jacques Kahn and Assistant Professor Leroy P. Burnham are giving their full time as resident teachers. Professor Kahn graduated from Columbia, and entered the Ecole des Beaux-Arts, where he studied under Redon and Tournaire, taking his diploma in 1911. He is the only American (in fact the only foreigner) who has ever won the Labarre Prize, which, next to the Grand Prix de Rome—open only to Frenchmen—is the great planning prize of the school.

### *Town-Planning Appointment for Mr. Raymond Unwin.*

Mr. Raymond Unwin, F.R.I.B.A., has been appointed to a post on the technical staff of the Housing and Town-Planning Department of the Local Government Board, where his experience of rural and suburban town-planning should prove most valuable. Mr. Unwin began practice in 1896 with Mr. Barry Parker at Buxton, and the association is still continued in London. He laid out Letchworth, and, in association with Mr. E. L. Lutyens, he devised the original plan for the Hampstead Garden Suburb. Not long ago Mr. Raymond Unwin was appointed lecturer on civic design and town-planning at Birmingham University. He has advised the Admiralty in regard to the development of Rosyth.

### *Increased Wages in Glasgow Building Trade.*

The wages of the building trade labourers in Glasgow, numbering some 3,000, have been advanced from 6½d. to 7d. per hour, as the result of an agreement between masters and men. The new rate, which is the highest yet reached by the labourers, will continue in operation till June, 1915. The bricklayers employed in Glasgow and district are also receiving an increase of ½d. per hour, as well as the members of the local branches of the Operative Masons' Association of Scotland. Altogether over 4,500 workmen will benefit by the new rates, which indicate a healthiness in the building trades that was not anticipated when the war began.

### *New Southwark Bridge.*

The corner-stone of the north-east abutment of the new Southwark Bridge was laid on November 20 by the Chairman of the Bridge House Estates Committee, Mr. Deputy Hayward Pitman. Mr. Biggart, representing the contractors (Sir William Arrol and Co., Limited), presented the Chairman of the Committee with a silver trowel and an ivory mallet, and in doing so said that the work of demolishing the old bridge was complete. Mr. Deputy Pitman, having laid the stone, said that the approaches of the new bridge were practically complete, and the stone put the finishing touch to the first part of the granite work on the northern side. The Navy had kept the seas open and enabled the great blocks of granite required for the bridge to be delivered up to time. There was reason to hope that the bridge would be finished at the date specified in the contract.

## COMPETITIONS.

### *New Board of Trade Offices, Whitehall.*

The designs in the final competition for the new Board of Trade offices were in last week, all the ten selected firm architects having, it is understood, completed. The building will have a front to the Embankment of about 350 ft., only half of it will first be built. It is added to a difficult site with all sides equal, and the proximity of Whitehall Court, went to make a difficult problem for solution.

The ten selected architects are: Messrs. H. Percy Adams and Charles Holden, Ashley and Winton Newman, C. Armstrong, Atkinson and Alexander, Buckland and Heywood-Farmer, E. Cooper, Charles Gascoyne and Ged Nott, E. Vincent Harris, Allick Horsnell and A. H. Brownrigg, P. Thomas and Ivor Jones. The assessors are Sir Aston Webb, Mr. Reginald Blomfield, and Mr. Ernest Newton.

### *Wesleyan Mission Hall, Stoke-on-Trent.*

The award of the assessor (Mr. E. Harper, F.R.I.B.A., of Birmingham) in the competition for a new central Wesleyan mission hall at Stoke-on-Trent is as follows: 1st, Mr. Reginald T. Long, Stoke-on-Trent; 2nd, Messrs. W. Thomas and Meredith, F.F.R.I.B.A., London; 3rd, Messrs. Wills, F.F.R.I.B.A., Derby. The total cost of the scheme will be about £13,000.

### *Workmen's Houses, Milldamhead Dumfries.*

Members and Licentiates of the R.I.B.A. are advised that the conditions of the above competitions are not in accordance with the Institute Regulations for Architectural Competitions, and the Competitions Committee are in correspondence with the promoters with a view to their amendment.

### LIST OF COMPETITIONS OPEN.

DECEMBER 31.—WORKMEN'S HOUSES, DUMFRIES.—The Town Council of Dumfries invite architects to submit designs for the erection of workmen's houses in the burgh. Particulars, Town Clerk, Town Hall, Dumfries. (See note above.)

JANUARY 23, 1915.—WORKMEN'S HOUSES, DONCASTER.—The Town Council of Doncaster invite designs for the lay-out of a site of about twenty acres at Carr Hill, and the erection of 102 workmen's houses on four acres thereof on garden city lines. Particulars from R. A. H. Tovey, Town Clerk, Doncaster.

NO DATE.—STREET PLANNING, BRADFORD.—The Corporation of Bradford invite competitive designs for the re-planning of streets in the central area of the city. Mr. Reginald Blomfield, R.A., act as assessor. Particulars (£1 is. returnable) from Frederick Stevens, Town Clerk, Town Hall, Bradford.

## FOR KING AND COUNTRY.

Second-Lieutenant C. B. Dixon received a commission in the Barnsley Battalion, York and Lancaster Regiment, and is now in training. He was assistant in the offices of Messrs. R. and W. Dixon, architects, Barnsley, and is the son of Mr. W. Dixon of the above firm.

Mr. W. J. Leahy—the fourth to enter from the permanent staff of Mr. A. Allott H. Scott, architect, of Lincoln's Inn—joined the Motor Cyclist Section of the Royal Engineers, and is now on active service in France.

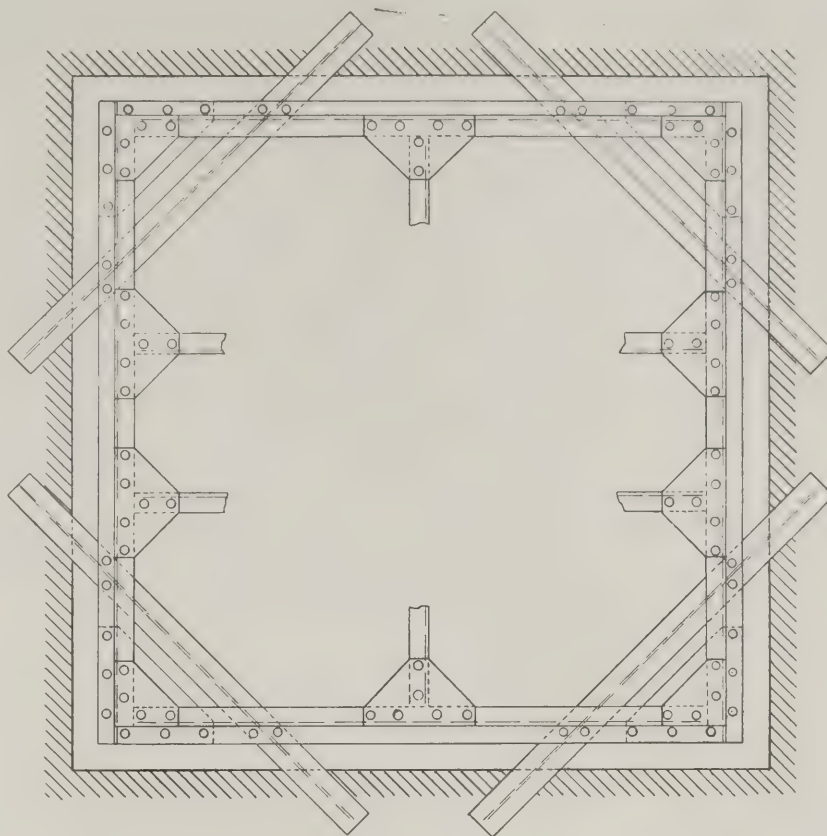


## FRAMES AND THE STABILITY OF BELL-TOWERS.

ry important problem for architects, ie that of late has received a great attention, is the effect of bell-hang-the stability of church towers. There no doubt that in the past much e has been done by the bell-hanging-scientific days; and we are glad re to show, by means of the accomg-illustrations and description, an ble solution of the problem at after much patient investigation reful experiment, the old-established of bell-founders, Messrs. John r and Sons, Ltd., Crescent Foundry, m Street, Spitalfields, have

r patented bell-frame with vertical vers is designed to protect towers sonry of ancient buildings from the and shocks incidental to the ring-bells, to render the ringing in peal equal and smooth, and to reduce and consequently the effort re- for continuous and extended ring-

main beams are of heavy mild-steel, and are placed diagonally—i.e., he corners of the tower or belfry (see On these the bell-frame is bolted forming a complete tie between alls of the tower, firmly anchoring walls together. With the broad of the flat side of the joist embedded masonry, offering a large surface to e strains, all the walls of the tower r will now offer a combined resisto any pressure. As an inside ment for tying and bracing the the effect is comparable to that of the method adopted on the outside of

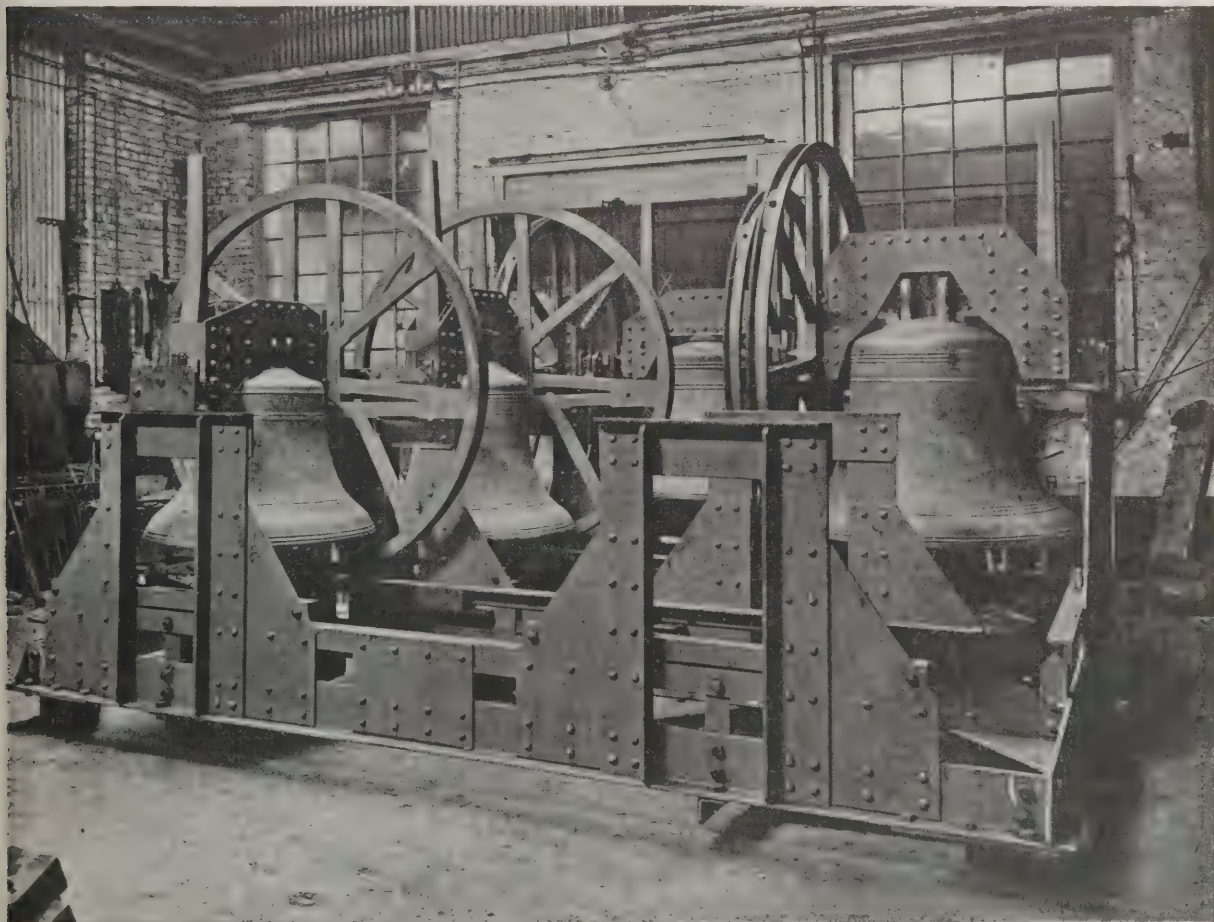


PLAN OF NEW STEEL BELL-FRAME.

chimneys and similar structures, of running bands and tie-rods round the outside to hold the four sides together.

From the illustrations here shown, it is clear that, even if the only object of the

diagonal joists and other members of the frame were that of connecting and binding the walls together, no better disposition of the main beams is possible, and it is claimed that no better anchorage for the



BREDON CHURCH BELLS, MOUNTED IN WARNER'S NEW BELL-FRAME.



whole wall of the tower is attainable. This is a vital point and well worth the consideration of all those who are interested in the preservation of fabrics.

The frame is of mild-steel construction, consisting of angles and plates riveted together in a thoroughly workmanlike manner, and designed to be of the greatest strength with regard to the direction of the stresses set up by the swinging of the bells. Vertical cantilevers are riveted on the frame to form a pedestal for each bearing and to isolate each bell in each set of bearings. These vertical cantilevers are so constructed as to provide for elastic movements or a springing motion of the upper end on which the bearings are fastened. This springing motion acts on a buffer, and equalises, diminishes, and minimises the thrusts and strains set up by the centrifugal force generated when a bell is swung or rung, and prevents such strains being directly conveyed to the walls of the tower or belfry by the frame or beams on which the bells are being rung. The pedestals or vertical cantilevers are, however, stiff enough to resist the ordinary strains set up purely by the centrifugal force, and therefore to prevent any undue accumulation of force.

Transverse (horizontal) stresses injuriously react on the masonry, and are especially injurious to ancient structures. Longitudinal (vertical) stresses—i.e., those that act downwards towards the base of the tower, or those acting upwards with a tendency to lift the tower, have, with the existing usual form of construction little or no detrimental effect on such buildings, and therefore need not be particularly provided against. The more or less sudden or momentary accumulation of the horizontal stresses set up by the swinging mass of heavy bells when ringing originates as follows. By the simultaneous swing of more than one bell in the same direction, producing suddenly increased horizontal impulse at the moment when the centrifugal force overcomes the inertia of their mass, by movement of their gudgeons in the freedom of the bearings; lastly, by the centrifugal force of the rotating mass overcoming the gyroscopic resistance to side movement exerted by one or more bells supported in the same frame and rotating at right angles to the first-mentioned rotating mass.

Self-aligning, self-lubricating oil-ring bearings, provided with an oil bath, are fitted on the vertical cantilever pedestals to take the gudgeons of the bells. These bearings have heavy mild-steel chairs. The brasses are of best quality hard bronze, supported in massive cast-iron cradles, and the whole constructed with surfaces sufficiently large to resist wear. These bearings are fitted with a receptacle in which are placed sticks of a special preparation to ensure the most perfect lubricating qualities in the warmest or coldest weather. Spring frame and self-aligning bearing as applied to bell-hanging have succeeded for the same reason that the springs and pneumatic tyres on carriages are effective.

#### "Punch's" Patriotic Posters.

Posters issued from "Punch" office to help recruiting and discourage treating are enlargements of some of the very fine cartoons drawn by Mr. Bernard Partridge and Mr. Raven Hill. A fund has been opened to defray the expenses of widespread distribution of these posters, which not only fulfil to admiration their patriotic purpose, but, by their masterly art, should help considerably the spread of taste.

## PROJECTED NEW WORKS.

### School, Hendon.

The Hendon Urban District Council are applying for a loan of £10,000 for the erection of the Hall Grove School, Mill Hill.

### Town Planning, Wallsend.

The Local Government Board have sanctioned a town planning scheme for Wallsend, Northumberland.

### Workmen's Dwellings, Bilston, Staffs.

Bilston Urban District Council have authorised the preparation of a housing scheme.

### Library, Islington.

A branch library is to be built by the Islington Borough Council in Essex Road at a cost of £10,000.

### Cottages, Bideford.

Bideford Urban District Council have instructed their surveyor to prepare plans and specifications for the erection of twenty cottages.

### Houses, Easington, Durham.

The Easington (Durham) Rural District Council are applying to the Local Government Board for sanction to borrow £27,000 for the erection of 100 houses.

### New Polytechnic, London.

Arrangements are being made by the L.C.C. and the Governors of the North-Western Polytechnic for the erection of a new Polytechnic at a cost of £67,000.

### Sewerage Works, Erdington.

The Public Works Committee have been authorised to construct a new sewer at Acock's Green at a cost of £4,100, and to carry out sewerage works at Erdington at an estimated cost of £4,460.

### Baths, Dublin.

A Local Government Board enquiry has been held at Dublin into the application by the Corporation to borrow £4,500 for the purpose of improving the baths and workhouses at Tara Street.

### Public Offices, Godstone, Surrey.

Plans have been prepared for new public offices, a highway depot, and two cottages on a site known as The Chalet, Oxted, for the Godstone Rural District Council.

### Business Premises, Nottingham.

The Nottingham Co-operative Society are to erect a block of retail business premises on a site at the Derby Road end of Upper Parliament Street. The building is to be five storeys in height and will cost £25,000.

### School, Elenboig.

The Scottish Education Board are pressing the Monkland School Board to erect a new school at Elenboig, and the latter board have invited the Cadder Board to co-operate with them in erecting a joint school.

### Housing Scheme, Spalding.

At a meeting of the Spalding Rural Council the raising of three loans was authorised for housing and water schemes. They included £2,333 for cottages at Pinchbeck, and £1,650 for cottages at Gosberton.

### Building Plans, Blackpool.

The Blackpool Building Plans Committee have approved the following among other plans: W. Chadwick—three pairs of houses, Warbrick Drive and King Edward Avenue; A. Taylor—bungalow, Warbrick Hill Road; J. G. Harrison—two villas and bungalow, St. Walburga's Road; E.

Entwistle—dwelling house, etc.; W. Hall Lane, off Newton Drive; J. J. Love—three cottages, North Albert Street; James Harris—eight pairs of villas, Land Road; Exors. of J. G. Pye—houses, Pine Street; John Magee—shops, Regent Square; Blackpool Cold Storage Co., Ltd.—works and warehouse, Heywood Street.

### Union Fusion of 20,000 Workmen.

On and after July 5 next the Builders' Labourers' Union and the Order of General Labourers will be merged as the Builders' Labourers and Navy Society of Great Britain. This will be the fusion of 20,000 workmen.

### Metropolitan Water Board Offers Contract.

Twenty-four firms submitted tenders for the erection of the new central office of the Metropolitan Water Board in Salisbury Avenue, W.C. The highest was £130,603, and the lowest (that of Heath and Son) £110,012. The latter has been accepted. The time specified for completion of the work is eight months.

### Collapse of a Crane at the New London County Hall.

The collapse of a crane at the New County Hall, Westminster Bridge, in the great gale last week, caused one man's death and injuries to two others. The crane was blown down close to the river bank, J. Cooper, of Prospect, Walthamstow, who was working on it, being killed.

## WHAT IS THE HEIGHT OF ST. PAUL'S?

The much-debated question of the height of the summit of St. Paul's Cathedral has been the subject of an interesting discussion in "Notes and Queries." Mr. Gerald Sparke, F.R.S.L., writes:

"Our National Cathedrals," Vol. p. 15 (Ward and Lock, 1889), says: "The entire height from the ground to the top of the cross is 365 ft." Birch's "Illustrations of the Churches of the Seventeenth and Eighteenth Centuries" gives a scale drawing of St. Paul's, and by this the measurement is exactly 365 ft. from the ground to the top of the cross. Canon Newby, in Purey-Cust's "Our English Minsters," p. 61, says, speaking of the visitor's view: "The cross is 365 ft. above the ground, and the ball, from which he must descend to the floor by 365 steps." Gwilt's "Encyclopædia," says "the total height from the pavement outside to the top of the cross is 404 ft., but usually stated as 365 ft." My copy of the "Encyclopædia Britannica" (1911), Vol. xxiv., p. 365, says: "The cross at the top of the lantern is 363 ft. above the ground."

Mr. Alan Stewart, another of the dozen contributors to the discussion, points out that the explanation of the discrepancy in measurements is that they are calculated from different standpoints. The late Timbs, Mr. Stewart reminds us, in "Curiosities of London" states the height to the top of the cross of St. Paul's as being 404 ft. from the floor of the dome and 360 ft. from the pavement of the church. In the St. Paul's volume of "Bell's Cathedral Series," the Rev. Arthur D. states the latter measurement as 365 ft., and Archdeacon Sinclair in his "Materials," puts it at 365 ft.



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## ELECTRICAL NOTES.

### *Woodhouse Steel Casing.*

Our attention has been drawn to this casing by the makers, the Linolite Company, of 25, Victoria Street. It is made of steel, and amongst the advantages claimed are that there is no drawing-in of wires; that these can be inspected at any time; that the casing is fireproof, does not strip the insulation, requires no electric bond, is neat and easily erected, etc. The casing consists of a trough and cover, the latter being sprung on. The troughs are slipped or sprung into close-fitting joint pieces (clips), which are nailed or screwed to the wall. Angles and tees are supplied for ordinary work, but for awkward corners and angles other than 90 degrees a special piece of flexible casing is used, which is merely bent by hand, no tools being necessary. The wires are then simply laid in. The covers are then pushed on and securely grip the trough. The joints in the covers are concealed by a simple push-on cap. If desired, the wires can be temporarily held in the troughing, before the covers are put on, by the use of these caps, which can be easily removed as they are reached when the covers are being put on. The clips securely hold the casing and bends to the wall, and are made so as to provide an air space of about  $\frac{1}{8}$  in. between the casing and the walls. The tees are so made that the leg can be bent forward through 90 degrees, with the cover on and by hand, a point which will be found very useful. The casing can be easily cut by means of a fine-toothed saw or a three-cornered file, the steel being purposely made thin so as to be springy and to follow quickly the thermal changes of the atmosphere in order to avoid sweating, which is often found with thick barrel.

All the springy parts, when gripped together, provide a well-bonded system, so that electrical continuity is assured. Only a few light tools are required for erection, and it is claimed that the casing can be put up very quickly as no bending machine or bending tools are required. As compared with wood casing and barrel, no mitreing or fitting is necessary, no drawing in or threading of wires has to be done, and no screwing or nailing on of corners is required, so that there is a good deal of labour saved. It will readily be understood that the whole system can be removed very rapidly, if desired, and this should be useful in the case of shopkeepers who are leaving their premises. In conclusion, the casing, being flat, looks neat, and the galvanised surface is smooth and takes paint well. When run below the surface very little cutting away is required, and, of course, the same remark applies to making good.

### *Some New Accessories.*

Amongst new wiring accessories we notice the "Klip-on" shade holder and the "Simplex" watertight lampholder. The former has been introduced by the "Klip-on" Electric Lamp Shade Holder Co., of 28, Spencer Street, Birmingham, and is intended to supersede the usual screwed shade ring, which so frequently strips its thread or is with difficulty screwed home with some shades. The "Klip-on" holder comprises two collars or rings, both split and united by a short helical spring of stout wire. The bottom collar is also provided with the standard bayonet slots. The bottom collar springs over the lampholder and clips it, and at the same time the spring lifts the top collar over the screwed portion of the lampholder and holds the shade in its correct position. The split rings enable the fitting to be sprung over all standard lampholders, although these may vary slightly in diameter. It is inexpensive and invisible when in position.

The "Simplex" watertight lampholder is of galvanised steel and strongly made, and is provided with a drainage hood which effectually carries the drip water clear of the lampholder shell. The length of thread on the nipple is  $\frac{5}{8}$  in., and two patterns of the fittings are made, each screwed for  $\frac{5}{8}$ -in. conduit. It is claimed that this lampholder is specially useful in exposed situations, such as factories, stations, subways, and out-of-doors generally. Being galvanised, the impurities in the atmosphere which corrode brass and steel are resisted.

### *Trading with the Enemy.*

The new Bill is an improvement on the original one, but like all Bills drafted by lawyers, for the benefit of lawyers, it is ambiguous in some points, and relies on the decisions of judges to explain or give a proper interpretation of its meaning and value. Parliamentary lawyers seem to be most anxious in this country to give the enemy the benefit of the doubt wherever possible and to handle him with kid gloves. In Russia they simply confiscate enemy companies. There was at one time a suggestion that all debts due to enemy traders should be paid into a Government fund or trust, for distribution after the war, but this would have been too simple and would have provided no work for the lawyers. There is very little exaggeration in the saying that where there is law there is no common sense.



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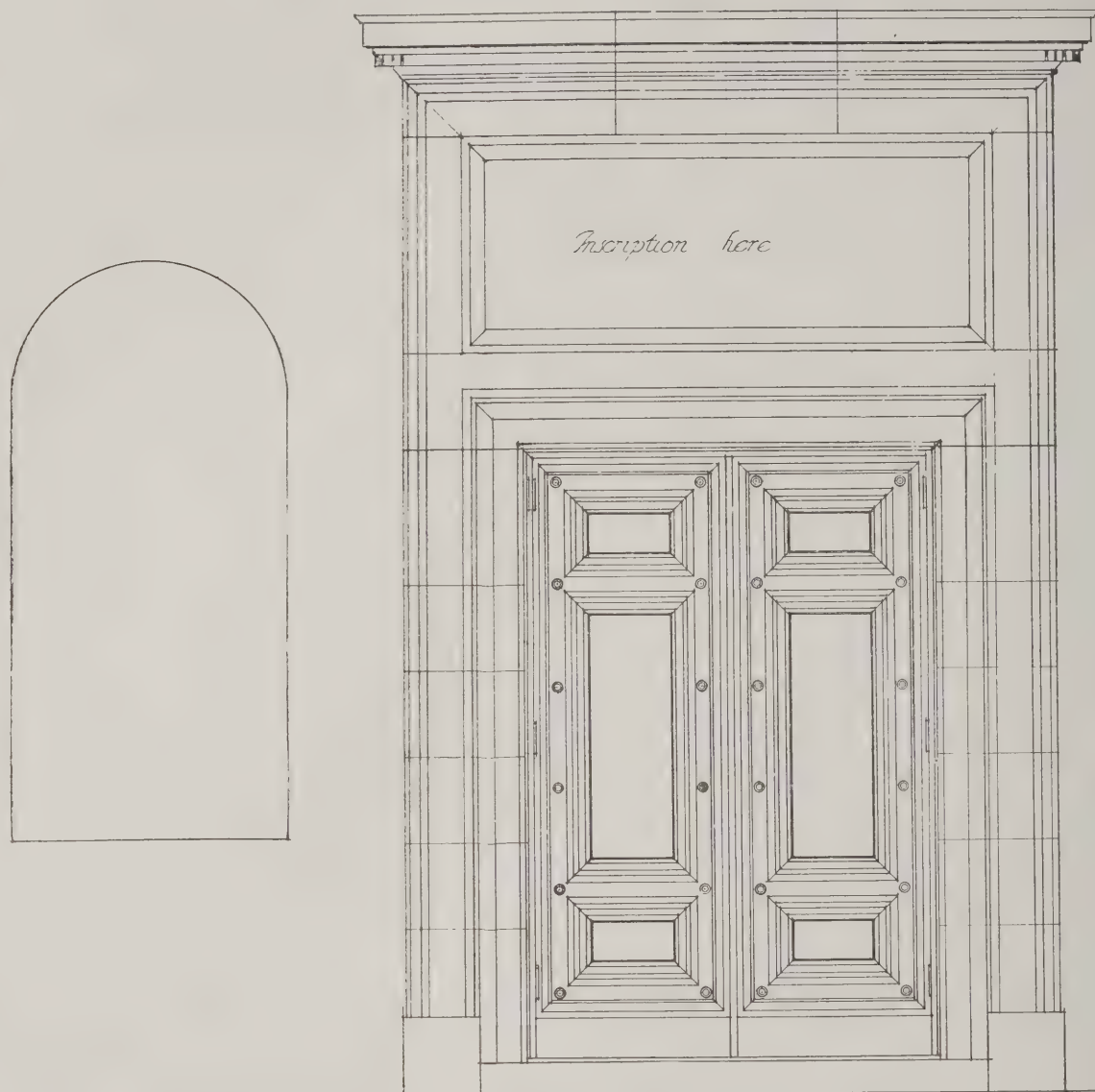
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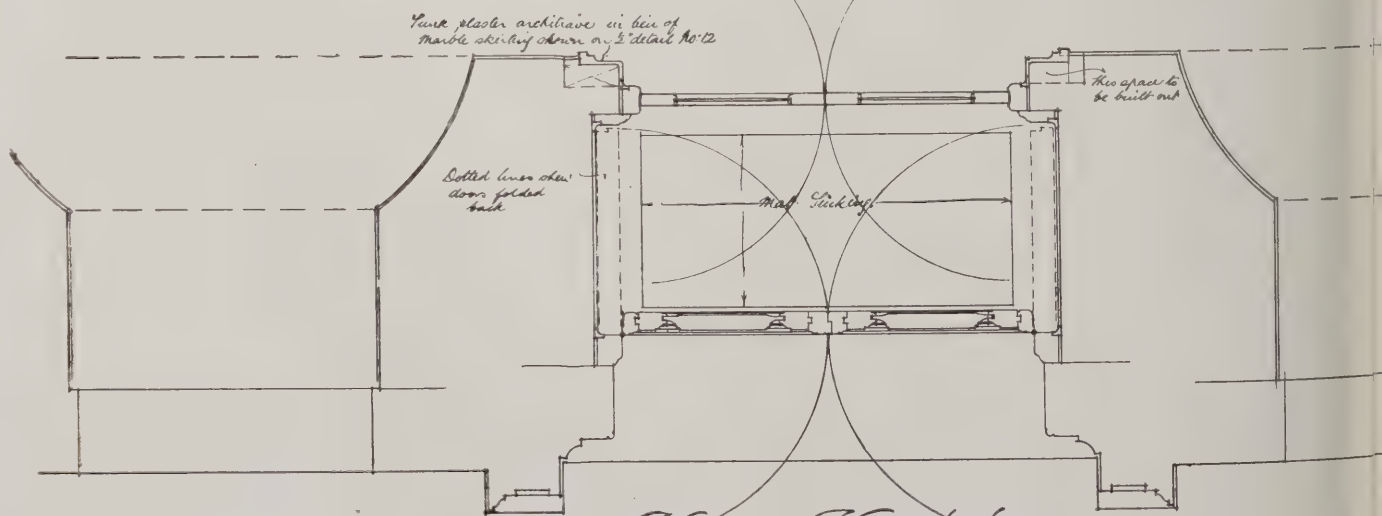
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# : 1" Scale Detail of Main Entrance Doors & Vestibule :



## : Elevation of Main Entrance :



## : Plan of Vestibule :

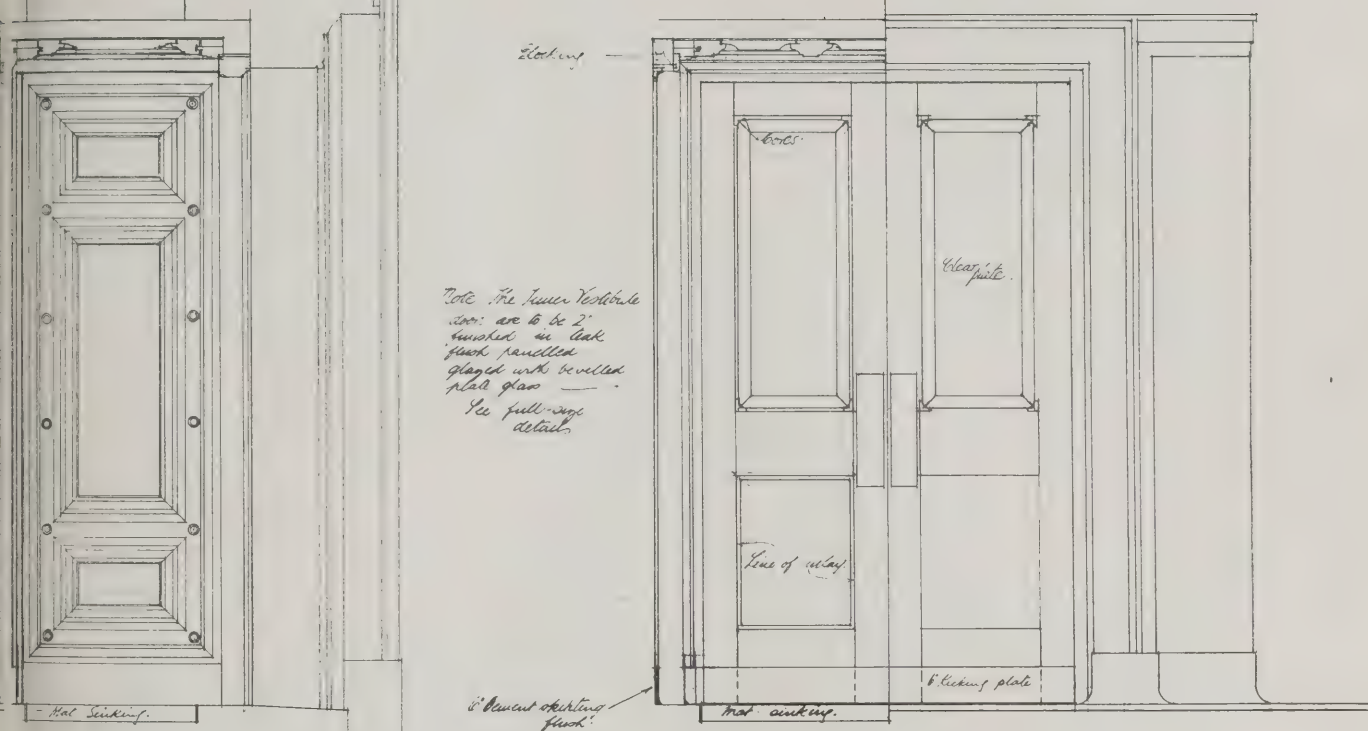


Doors:

(selected teak.)

Drawing No B.493

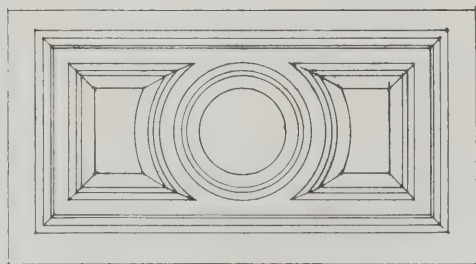
Recess for Clock



Section thro' Vestibule showing Main doors folded back:

Half long Section

Half Internal Elevation



The circular centre panel in the ceiling is not to be fixed pending the arrangement of a light in this position.

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Plan looking up shewing ceiling panel.



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FLORENTINE PALACES. II.—THE UFFIZI: VIEW IN COURTYARD.

G. VASARI, ARCHITECT.









FRENCH EMPIRE FURNITURE. IX.—ARM-CHAIR IN THE GRAND TRIANON, VERSAILLES.



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MODERN SHOP FRONTS. XVI.—No. 25, RENFIELD STREET, GLASGOW.

PERCY J. WESTWOOD, A.R.I.B.A., ARCHITECT.









MONUMENTAL ARCHITECTURE. XXXIII.—ÉCOLE MILITAIRE, PARIS.

J. A. GABRIEL, ARCHITECT.







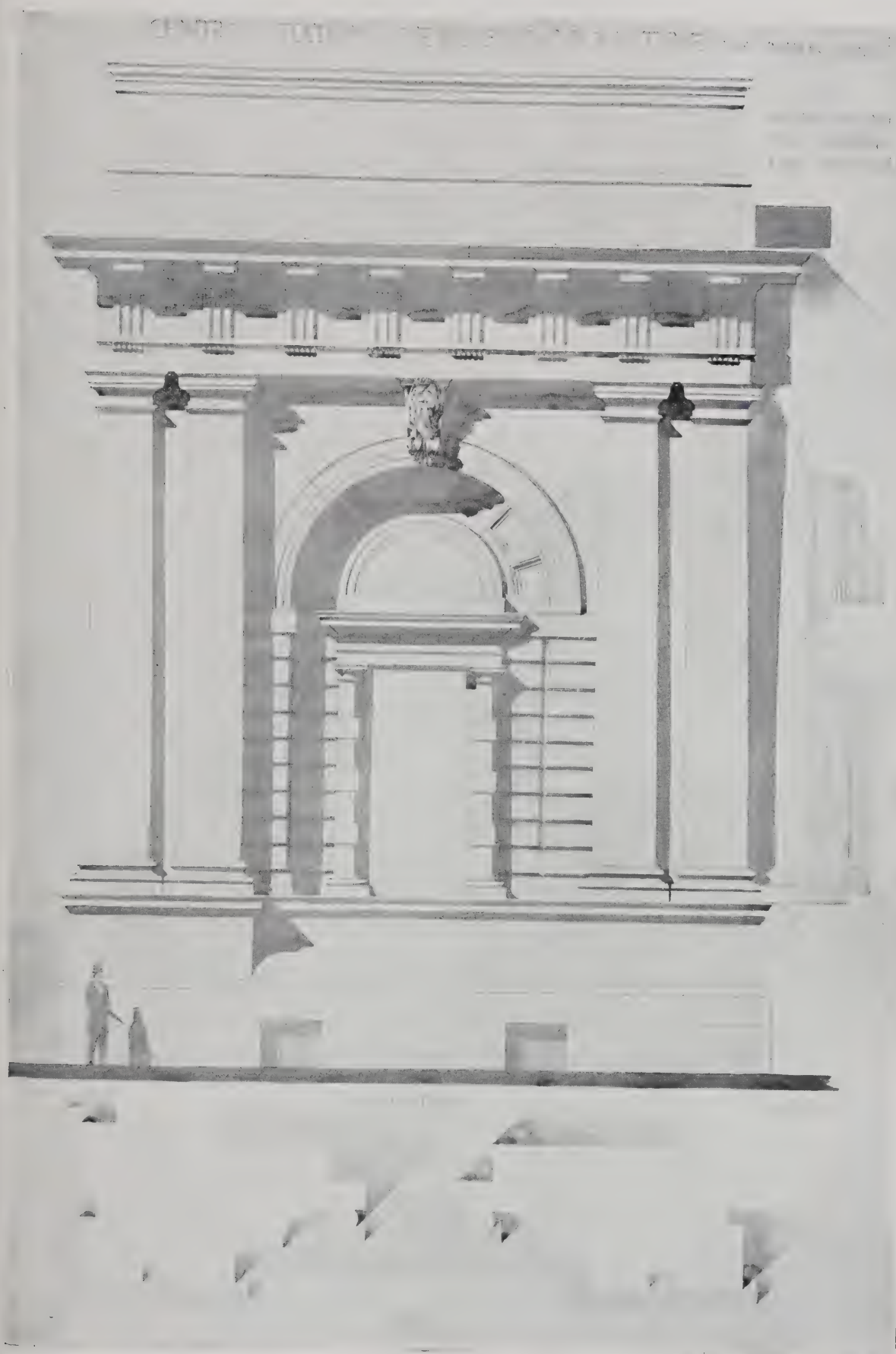


SMALL HOUSES OF THE LATE GEORGIAN PERIOD. XXXVI.—PORCH TO SOUTHWOOD HOUSE, HIGHGATE, LONDON.









STUDENTS' DRAWINGS. XXXVII.—CENTRAL STATION, NEWCASTLE-UPON-TYNE: END PAVILION.  
JOHN DOBSON, ARCHITECT.







THE  
ARCHITECTS' & BUILDERS'  
JOURNAL.

Wednesday, December 16, 1914.

Volume XL. No. 1041.

No. 115.



(From Piranesi.)



# THE ARCHITECTS' & BUILDERS' JOURNAL.

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TOTHILL STREET, WESTMINSTER.

VOLUME 40. No. 104

## EDITORIAL.

IN commenting, last week, on a Manchester writer's plea for "civic beauty," we should have liked, if space had served, to support his protest against the futility of erecting "pretty street lamps" while permitting ugly tram standards. This is but one of innumerable instances of the ills that arise from divided control, but it is sufficiently typical to emphasise an important point. Incongruities of this sort are not merely an evil *per se*: they have a reflex action on design. For an artist disheartened by the knowledge that his creation will probably be ruined by something monstrous being placed in proximity to it is in no mood to put forth the best that is in him.

\* \* \* \*

Unfortunately, this influence seems to lose its potency in the opposite direction. An object of beauty set up in a public place is undoubtedly an inspiration, but ordinarily the engineer seems insensible to it. We have particularly in mind a desolating case in point. Where four roads meet, in the suburbs of a southern seaside town, there was erected a beautiful sculptured memorial. Within a few years it became painfully evident that the town had developed much faster physically than æsthetically. Tramways on the overhead system were introduced, and, as one lamentable result, the beautiful monument at the converging roads was slain by the erection quite near it of a barbarously hideous standard, which, from the main approach, completely hides the monument from view—mercifully, in the circumstances: but what folly and futility! Yet this is but a typical example; such misdeeds are too common to excite our special wonder.

\* \* \* \*

Examples might be multiplied *ad nauseam*. A clock tower in a certain southern suburb of London was designed to be of quite graceful proportions. It was found, however, that the expense of erecting it to the height specified by the architect was greater than the ear-marked—perhaps long-ear-marked—funds would allow. Then the choice lay between a longer purse and a shorter tower, and there is hardly any need to say what happened. Local authorities are always keen on "cutting down"; and when this particular authority cut down the tower and the cost at one fell operation it simply revelled in the stroke which robbed the monument of all grace and dignity by dwarfing it to squatness. Perhaps nothing that can happen to it now may matter very much; but the framed and glazed road directions that stick out from its angles proclaim most emphatically the road to æsthetic ruin. But in the present state of "taste," it is rather surprising that as yet the practical-minded borough council has failed to seize the opportunity the tower affords as a hoarding for patriotic posters. That borough council is surely falling behind the times.

Talking of truncated towers, one's mind naturally reverts to the rather sad case of the church of St. Bride, Fleet Street. A casual observer, knowing nothing of the history of this curiously indented steeple—of which Wren is said to have got the form from the shell *turritella*, "which, though of delicate fabric, is made durable by the central column on round which the spiral winds"—would probably not notice that its aspiration skywards ends a thought abruptly; but an architect would feel, even if he did not know, that the steeple is some eight feet shorter than its original height of 234 ft. In 1764 the church was struck by lightning, and the topmost tier of its spire was thrown down, and was not rebuilt, the more to its pity.

\* \* \* \*

Many provincial architects do themselves the injustice of supposing that the remarkable steeple of St. Bride exhausts the interest of this church's interior, having the right Wren touch, will repay a careful examination, and does not suffer very much in comparison with that of St. James's, Piccadilly. It may be remembered, Wren regarded as a doubtful experiment, saying: "I can hardly think it practicable to make a single room so capacious as to hold above 2,000 persons all to hear the service, and both to hear distinctly and see the preacher. I endeavoured to effect this by building the parish church of St. James, Westminster, which I presume is the most capacious with the qualifications that hath yet been built."

\* \* \* \*

Wren's quaintly expressed and ingenuous remark rather a gloss upon the notoriously bad acoustics of Paul's Cathedral, about which the architect himself had serious misgivings from the outset. As St. James's was built in 1682-4, and the first stone of St. Paul's was laid in 1675, and Wren was therefore for some time working on both buildings simultaneously, one may conceive with what intensity of interest he was occupied for effects at St. James's. But, experimentally speaking, the interior of St. James's is one of his most successful designs, and is much more elegant than that of St. Bride; where the copy in stained glass of the "Descent from the Cross" adds quite definitely to the rather gloomy atmosphere.

\* \* \* \*

Harking back to the "pretty street lamps and tram standards" to which reference has been made in an earlier paragraph, one remembers that the remarkable Mr. John T. Emmett, upon whose rich store of wit and wisdom "Ubique" has of late drawn so delightfully, had something pertinent—or, as it would have it, impertinent—to say upon this a



any other matters that are perennially topical. "To" he says, "a very simple illustration of contemporary connoisseurship and inventive power: certain, the thin, transparent shelter for a totally impossible body, were required at Trafalgar Square, and æval workmen would have furnished metal, light and graceful, fitting for so light an object. would be too rational for modern 'art'; and so we two structures built of stone, thick as the piers of old Norman abbey with a proper architectural and moulded cornice, and two lamps superfluously for the Eddystone: each a burlesque construction to support a jet of gas."

What was written in 1880, and it will be admitted, the advent of the electric light and the gas-mantle effected a very considerable reform in the design of light-fittings, so that the tendency is now distinctly towards what the Manchester writer calls "pretty"—may be quite sure that he does not mean "pretty"—street lamps, and real elegance in light-fittings generally. For this reform we are much indebted to the good sense of the manufacturers of electric-light fittings, who have been swift to grasp the opportunity for introducing genuinely decorative designs. It is true that they have drawn very largely on old models, but their sagacity in the selection of designs well for the original work that falls within the sphere of influence.

A fine old building in Dundee, the Town House, is threatened with destruction, because it stands on the way of a contemplated improvement scheme, and a respondent of the "Scotsman" deals faithfully with the members of the town council who are in favour of its demolition. "These men," he says, "seem to think that this is a matter that can affect only Dundee. The recent actions of German soldiers in France and Belgium have proved that the destruction of a beautiful building can move the finer feelings of large numbers of people in many countries." After Reims Cathedral and Louvain, Dundee Town House! It is a terrible indictment, and we are sure that the writer will recoil from it if he would throw it into the form of a cold equation—as Dundee Town is to Reims Cathedral so are the Dundee Councillors to the German Huns. It is too hideous a comparison as between the persons if not as between the places, and the writer who made it must be a daring man.

Like the councillors he attacks, however, he usually means well, and we should have been glad of his protest if he had expressed it more tactfully. The Town House, he recalls, was designed by William Adam, was finished in 1734, and is a fine example of William's work, "which was founded on classical lines, and became in his hands the most ideal architecture that appeared after the Gothic had ended"—a statement that the censor may pass without assuming responsibility for the details. For we may cheerfully admit, with certain reservations, that it is possible to be original on Classical lines, and cannot help thinking that our author is again very severe in the insinuation that Gothic was merely pre-Adamite. That would be the next worst to suggesting that there might be some reference to the theory of natural selection in the tree-trunk-and-bush theory of the origin of Gothic.

William Adam the First—this designation, redolent of Mr. Noyan's "Pilgrim's Progress," is necessary to distinguish him from his son William Adam the Second—born in 1748. Besides the Dundee Town House—in which William Morris put in some stained glass, and,

on entering the building for the first time, exclaimed in evident delight, "Adam!"—William Adam designed a large number of residences in Scotland, as well as the library and University of Glasgow, the old Edinburgh Royal Infirmary, and the orphans' hospital in the same city, where he held the office of "King's Mason." William Adam the Second, living until 1822, survived his brothers John, Robert, and James, and concluded their various undertakings. It is said that John, James, and William never met without piously ejaculating, "Thank Heaven we have a brother Bob!" They had reason. Another Adam, who seems better entitled than our William to be called Adam the First in the architectural line of descent, has his name—Adam, only that, and nothing more—painted on the vault of the southern aisle of the Cathedral of Poitiers, of which he is supposed to have been one of the architects; and the building was begun in 1162. *Nomen clarum et venerabile!*

It seems to be supposed by Mr. Alan Potter, the chief recruiting officer of the Architects' Volunteer Training Corps, that there are some able-bodied young men who hold aloof from His Majesty's Forces from a sort of fastidiousness. If they cannot get into the corps of their fancy, they hesitate to join at all. Mr. Potter (who is the Kitchener of his own domain) would deal very tenderly with these Laodiceans. He is happily in a fairly good position to give them the unit they want: always premising that the Dandy Fifth is not yet upon his list. It would appear, however, that the Royal Engineers are just as select, if perhaps not quite so "smart," for we are assured that in this corps "the general stamp of recruit is of very good class." That assurance was hardly needed, for everyone should know by this time that any man who has the good luck to be accepted by that splendid regiment is greatly honoured; and the other units on Mr. Potter's select list are no doubt highly respectable.

With Mr. Potter and the fine work he is doing we are in full sympathy; and lest it should be suspected that in the foregoing paragraph there is a touch of sarcasm, we hasten to say that it leaves him scatheless. Like him, we would not quench the smoking flax; rather would we fan it into patriotic flame, and to that end it may be said that we quite understand the reluctance of the delicately nurtured young fellow who—perhaps unduly influenced by his maiden aunts—hesitates to risk "roughing it" among all sorts and conditions of men. In his case, and in others that are less extreme, it is perfectly natural that there should be a wish to consort with comrades of like tastes, habits, and instincts. That, indeed, is rather an important point, and Mr. Potter has made and is making excellent use of it; for men—especially young men—are markedly gregarious, and will do collectively what they would never dream of doing as individuals. The prospect of real comradeship, implying congenial companionship, is a strong recruiting agency; and that it is to be plentifully enjoyed by those joining the Territorials is evident from an interesting article published on p. 358, written in camp by our contributor and colleague, "G. J. H."

A telegram from Copenhagen last Friday announced that two Danish and six Norwegian steamers laden with wood for England, and seized by German warships in the Baltic, had been declared by the prize courts to be German prizes. It was further stated that "similar action will be taken by Germany as long as the war lasts." "Punch" had this paragraph about the capture: "The German Government has declared timber contraband of war owing to its alleged scarcity in Germany. Surely, as Douglas Jerrold suggested



on another occasion, the German authorities could find plenty of wood in their own country if they only put their heads together." It is certainly a characteristically wooden-headed proceeding, destitute of all sense of justice or semblance of reason, and one that may cost Germany very dear in the end. Britain, as mistress of the seas, could easily make reprisals, were it not that she would never stoop to so base an abuse of her sea-power as to bully small neutral States. Doubtless Britain was intended as the objective of this despicably paltry action, but it is inoffensive Denmark and Norway that will suffer. We can get timber elsewhere. Germany seems fated to demonstrate at every fresh step her futile spitefulness and her utter unfitness for the domination to which she so rashly aspired.

### HERE AND THERE.

IT is alluring enough, that notion about settling down to "efficient architecture," and so achieving the real thing, in place of the unreal which a century of looking backward has given us. The reader will recall the simile between architecture and the design of motor cars, with its alternatives, the "look upon this" and the "look upon that," the modern manner of building houses out of old barns with roofs of worn-out tiles, and the glittering efficiency and beauty—if perhaps you can see it?—of the latest Rolls-Royce. This, indeed, is the sort of notion that is captivating on first acquaintance, and, so long as we leave it wrapped in dicta general, it will serve well enough; but any attempt to realise it seriously and practically (a forbidding word, but we must needs use it) will surely end in disappointment. The modern house, let us admit, has its own proper claims. I suppose if we be really up to date we shall want that "central heating" which, with "lifts to every floor," is the delight of every hotel proprietor, and we shall want, too, fitted basins in our bedrooms, with hot and cold laid on, and hearth fires, and cunningly devised electric lighting, and goodly places to keep our bicycles, our coats, and our golf sticks; while a beneficent watchfulness over the comfort of our servants will see to it that all the little details receive attention, that the range is lighted from the proper side, that the larder does not get the sun upon it, that there is plenitude of cupboards, and so forth. But these things do not go to make up a new style of domestic architecture. After all, we gather around our fireplaces in much the same way as our forefathers did (with the exception that theirs were roomy enough to take ample logs from a plentiful stock of timber, whereas ours are more modest affairs with glories proportionate to the p.c. amounts); and the course of time has not altered the culinary arts, so that there is nothing very modern in our needs in the dining-room; while, above, in the bedrooms, all the new developments concern details only; and much the same state of affairs presents itself throughout the house: leaving us at the finish with the fact that there is nothing fundamental in the way of architectural design that can arise from the considerations of "efficiency." I suppose if we insisted on being "efficient," we might produce something modern out of an application of hospital principles to our houses—superabundance of daylight, flush doors, rounded angles, sanitary floors, absence of mouldings, and rooms fitted perhaps with apparatus for impregnating the air with a germicide; or if we developed such little ways as the Japanese have, in taking out their windows bodily when the weather gets hot, and sleeping on mattresses on the floor instead of on bedsteads, and doing without chairs and big tables, we probably should be able to evolve something strangely and wonderfully our own: but the simile between architectural design and the design of

motor-cars would still not hold good, the house governed by established conditions, whereas the car is a product of new conditions.

The mystery of the Amsterdam carillon deeper. First I wrote feelingly about the jangle proceeded from what I averred to be the Palace. Then came the Royal Carillonneur self, saying that either I was deaf or I had heard other bells: and accordingly I apologised for a slur on François Hémony, "the greatest of all founders," and on Mr. Vincent's artistic skill in playing the carillon. The Dutchman in London said the playing proceeded from a chiming clock on the Westerkerk. Lastly comes a reply to my inquiry addressed to the hotel in Amsterdam at which I stayed, in brief, but to the point, the proprietor observing: "I have the pleasure to inform you that the building where the chimes are is called the Royal Palace. Obviously, we cannot all be right. Here are several points: (1) I must, after all, be deaf; (2) if I am not deaf, I don't know a fine carillon when I hear one; (3) I heard some other chimes; (4) the carillon on the Westerkerk; (5) the carillon turns out still on the Royal Palace—and so we come back to our position. There is no doubt, however, that—to Shakespeare—

The midnight bell  
Did, with his iron tongue and brazen mouth  
Sound on into the drowsy ear of night.

At this point I will leave the puzzle for the being, hoping that Mr. Vincent himself will elucidate the mystery. And now that we are concerned with this matter of tune-playing on bells, of interest to note that "the world's greatest carillonneur," M. Josef Denyn, is at present in our midst, having, like the many other Belgian refugees, come to our shores for safety. M. Denyn is the carillonneur of the cathedral of Malines, but hurried hence when the German shells wrecked the house he lived in. He is now at Tunbridge Wells—the guest of Dr. Starbuck, a great authority on bells; and advantage was taken of his presence recently to arrange a performance by M. Denyn on the carillon of forty bells at the fountain, Messrs. John Taylor and Co. at Loughborough.

I will not pretend to be versed in the technical details of carillons, knowing little more than that the bells are fixed and do not swing, and that there are various arrangements of wires and clappers whereby they may be played upon, the musician sometimes operating from a keyboard; his place being taken by a substitute barrel of the musical-box order when the action is rendered automatic. But I may at least venture to note that carillon playing is essentially a music for the people, a music that can be appreciated and enjoyed by the least trained ear equally with the musician who is able to detect the finer subtleties. It is in these things that M. Denyn is known to excel. However, it is not that, "from the exercise of the tremolando and enrichment and colouring by chromatic passages," that an artist can only be fully appreciated by the true lover of his art." And so, not being gifted with musical knowledge, there may be some explanation for the comments I made on the carillon that chimed at a quarter-hour of the Amsterdam night. I suppose by some natural process of induration, one may become used to this everlasting chiming—might even, in time, arrive at the interesting condition of the miller whose sleep was broken, not by the creaking of his mill, but by its cessation; but the novice would, at least in such a case, be painful.



## THE PLATES.

*The Uffizi, Florence.*

The illustration published this week, the third and of the Uffizi in this series, shows a portion of the to the courtyard, the top storey being a ration according to what was considered to be n's original design.

*"Aux Morts."*

was a great personal sorrow—the loss of his wife turned the thoughts of M. Bartholomé to funeral ture, his most remarkable achievement of this e being the great monument "To the Dead" on hillside of the Cemetery of Père Lachaise, Paris, ng the vista along the roadway that leads up from ain entrance. As has been said, the future state e immortality of the soul—eternal peace in the eries of death and resurrection—such are the lems which M. Bartholomé treats with a noble and ing simplicity and elevation. Of the monument "the Dead" M. Roger Marx has written an ent interpretation. He says: "The edifice is tecturally related to the Egyptian temple. The eliefs on its façade develop theories of *pleurers* each other; they meet at the entrance of vault; on the right, men, women, and children are ered against the wall, prostrate, tottering, advanc- slowly to postpone their entry of the formidable d; on the other side, massed in a compact group, g, crouching, stooping, disconsolate beings mur- words of farewell, exchange last embraces, hide faces, or turn aside, for, as La Rochefoucauld says, un and Death cannot be regarded steadily; there ough but despairing gestures, disquietude, and ing, sobs and supplication. And think upon the y of all this anguish! One couple has crossed hreshold, has entered the night of mystery; the table way opens before them—and to travel it the an leans on the man's shoulder, confident in the al of existence." Below, a winged genius lifting stone of the tomb, allows the light to shine upon e who sleep so peacefully in the land of shadows. e words of Miss Kingsley, who deals with the ment in her "History of French Art," it is not to memorate one person, one century, one race, this e Monument to the Dead, but to serve as a orial to all—gentle and simple, statesman and nunard alike, known and unknown, the young and ld, who have travelled the unknown road.

*House in Oxfordshire.*

ie house in Oxfordshire by Mr. Ashbee is built ck bricks, rough-cast, and roofed with Cotswold e slates laid in diminishing courses. The site is ically level, and the house is so placed that the g-rooms and bedrooms get the maximum amount n. To the north and east of the house is a rose en, sheltered by a yew hedge, while to the south he lawn and the orchard. A straight stone-flagged leads from the road to the house, which has been as simple as possible in design in order that it harmonise with the building tradition of the ict. The entrance porch and the chimney-stacks ult of Campden Hill stone.

*Wesleyan Mission Hall, Stoke-on-Trent.*

ie design by Mr. Reginald T. Longden, of Stoke eek, was placed first in the competition just ed. The site is of an island character, surrounded ree sides by streets and on the fourth side by the Market Square, which is of some local historic est. The main object of the plan was to embody e accommodation required in the most compact serviceable form, and also to give ready access to exit from all the departments. The large room on ground floor is convertible from two small rooms

for Sunday School purposes into a large room for Swedish drill for the Boys' Brigade. The first floor is devoted to the uses of the Mission, with seating accom- modation of 1,250, the requisite smaller rooms serving as vestries and for general Mission work. It is pro- posed to carry out the exterior with a red sand-stock plinth, and above that level with red quoins and dressings generally, and a grey Reading brick filling. The roofs will be of green slates. The interior finish will be quite simple, and of fire-resisting construction throughout. The amount available for the scheme is such as precluded any attempt to suggest other than the simplest treatment possible.

*Late Georgian House, Highgate.*

This is a typical example of a small Georgian town house erected in country surroundings, Highgate, of course, having been quite outside London at the time this house was built—in the closing years of the eighteenth century. It is a perfectly simple composi- tion, but the parts are well related to one another, the doorway being just sufficiently emphasised without being over-dominant, the windows pleasantly disposed, and the crowning cornice displaying both refinement and vigour.

*French Empire Chair.*

This is not so pure an example as some of the other chairs in the series, but it has several points of interest, more particularly the design of the arm supports.

*Working Drawing of Huntingdon Town Hall.*

This is a good example of what may be called modern Colonial work in America: a type of work which, if it tends to over-slenderness, and consequently lacks a certain robust quality, is, nevertheless, charac- terised by refinement throughout, and, as such, is far more desirable than the type of "free classic" which is characteristic of much work carried out in this country in recent times. Our illustration is from "Architecture."

*Central Station, Newcastle-on-Tyne.*

The drawing of the end pavilion of the Central Station at Newcastle-on-Tyne, illustrated last week, was made by Mr. H. St. John Harrison, an archi- tectural student at the King Edward VII. School of Art, Armstrong College, Newcastle-upon-Tyne, as part of his set of Testimonies of Study for the R.I.B.A. Intermediate Examination.

## "THE ARCHITECTURAL REVIEW."

THE December issue of "The Architectural Review" is an especially interesting number.

There is first an article by Mr. Percy W. Lovell, B.A., A.R.I.B.A., on "The Passing of Cloth Fair," illustrated by a series of prints, etchings, and photo- graphs of the old houses that have just been demolished. These illustrations afford convincing evidence of the loss which the City is suffering, and one cannot help feeling that, following the example of Bristol, where the "Dutch House" was ingeniously preserved by gutting its interior and replacing with new floors and plaster, some means might have been adopted to preserve Cloth Fair. The record of the destruction wrought by the Germans in Belgium includes this month an illustrated article on Termonde by Mr. John A. Randolph. Mr. A. E. Richardson, F.R.I.B.A., contributes an article on Hittorff, the illus- trations accompanying which include the little known but admirable design for the Cirque Napoléon; Mr. Edward Warren supplies a note on two new etchings by Mr. New, of Oxford and Florence respectively; while an article on "English Eighteenth-Century Metalwork" is illustrated by some superb plates. Finally there is the concluding portion of Mr. Sidney Heath's article on "Old English Almshouses."



## THE ARCHITECT-RECRUIT.

TO the architect-recruit, more perhaps than to any other member of the New Army now in training, the route march is of peculiar interest, especially if he is fortunate enough to be stationed in a county which abounds with architectural features. A route march in such circumstances, so far from being exhausting, becomes positively exhilarating. No matter how long be the road, there is always something to claim the attention. It may be a church standing on the far side of a trim village green, still rearing its proud little steeple after centuries of exposure, and the architect-recruit marching by will perhaps recall an R.I.B.A. lecture in the course of which some slides of this same little church were shown to demonstrate the vandalism of early nineteenth-century restorers! As he marches steadily along, a constantly changing panorama of architecture will be presented to his view. One moment it may be a *coup d'œil* of some comfortable homestead which has endured from Tudor days, or a sudden glimpse of a stately Georgian mansion, with its mellowed brickwork, wonderfully white sash-bars, and flashing panes of crown glass; the entrance gates, between sturdy brick piers, revealing in their gracefully wrought ironwork more than a trace of the influence of Tijou. Then, perhaps, will come a stretch of more or less blank road, during the traversing of which the architect-recruit may expatiate to those of his comrades who care to listen upon the beauty of English vernacular architecture, speculating as to what might happen to it should the Huns ever succeed in an invasion. Then the road will take a sudden turn, and one will be marching, to the music of drum and fife, through some old-world village, whose main street is overhung with gables that seem to tilt perilously outwards. One will just have time to remark the early nineteenth-century town hall, dropped as it were in the middle of a market place which is none too wide, the plain little Georgian residences standing back beyond trim gardens, and in contrast to all this the flagrantly hideous modern shops which are beginning to supplant the old work—when the village will come to a sudden end, and one will again be going merrily along the high-hedged country lane to the lusty chorus of "Tipperary."

No wonder, then, that the architect-recruit receives the announcement of a long route march with considerable elation. But these welcome reliefs are all too infrequent, the bulk of the time being given up to such inartistic things as skirmishing in short rushes, squad, company, and battalion drill, drill of the Swedish variety, and muscle drill with the service rifle, whose weight, after being held at the aim position for a couple of minutes, the recruit discovers to have been absurdly under-estimated.

But it is not only in the purely architectural things that the architect-recruit will find an interest. If he is lucky (he will probably think himself unlucky afterwards) he may get a spell of trench digging which will afford him an excellent opportunity of testing the theories of those ingenious Americans who write elaborate treatises on "Motion Study" and allied subjects. After a morning's more or less continuous work with the pick and shovel, not to mention the wheeling of heavily loaded barrows up steep inclines, he will begin to readjust his former estimate of the British labourer, and will feel inclined to doubt the accuracy of the American theories. It is amusing to calculate the amount of work that can be done by the other man within a given time, no allowance being made for stretching stiff backs and weary limbs, and wiping perspiration from heated brows; but when it comes to testing the theory for oneself the matter is altogether different, and one is apt to become blandly lenient in

assigning the amount of work that can be accomplished.

There is no danger of the architect who has the colours losing his interest in architecture. From what has already been said, there are many in which he may keep up his affection for the M. Art. It is really astonishing how great an interest is taken in architecture by the average recruit, and often the views expressed are unconventional, and say startling. In the hearing of the writer, for instance, one recruit was reverently enlarging upon the antiquity of English church architecture, apparently under the impression that the ecclesiastical buildings of East Anglia were all erected some about A.D. 400!

And so the time goes on, the recruit rapidly becoming efficient for the deadly work of the future.

The experiences of other architectural recruits training with Lord Kitchener's Army or the Territorials should prove interesting to the readers of the Journal, and doubtless the Editors would be glad to hear from them. To the writer the Journal forms a strong connecting link with the past, and it is that architects and others having an interest in the profession should keep in touch with the old Journal, which, let it be hoped, we may all safely return.

G. J.

## CORRESPONDENCE.

*The Editors disclaim all responsibility for the statements made or expressed by correspondents, who are asked to be brief, and to write only of the paper. Every communication must bear the name and address of the sender.*

*Recruiting Among Architects.*

To the Editors of THE ARCHITECTS' AND BUILDERS' JOURNAL.

SIRS,—I should be glad if you would allow me to express in your Journal to communicate with your readers regarding recruiting for the New Armies and Territorials.

The authorities are asking men of all classes to come forward at once and join the forces. There will be some who hesitate to take the final step of joining the Regulars, and find they have difficulty in being accepted by those Territorial units they would like to join. The Architects' War Service Bureau and the Training Corps has developed its organisation to attract such men in their desire to join the forces, and in addition to introducing recruits to the various Territorial units, it has arranged for drafts of men to enlist at the same time as the Regulars, with a view to their serving together as their duties will allow.

This has been done most successfully as regards the Royal Engineers, largely on account of the kindness of the Depot authorities at Chatham, and officers who have so enlisted in the Royal Engineers have a very good time, have been looked after well, and have found the general stamp of recruit to be of a good class. I would, therefore, urge all professional men of military age to take the opportunity offered by the Royal Engineers, and join at once, as they are recruiting more especially for the following units which are now open:—

Royal Engineers.—Draughtsmen for the signal companies (not to serve as draughtsmen); and draughtsmen for the field companies.

1st Divisional Engineers (T.).—Skilled workmen for the field company.

2nd London Sanitary Company, R.A.M.C. (T.).—Men of sanitary experience, sanitary inspectors, chemists, etc., wanted; recruits wearing gas masks accepted.

"The Artists," 28th Batt. London.—Picked recruits only; height 5 ft. 8 in.

Any of your readers wishing to enlist should



communicate with me, when I will do all I can help them to join that branch of the service for which they are most suited.

ALAN POTTER,  
Chief Recruiting Officer, Architects' Volunteer  
Training Corps, 18, Tufton Street, Westminster.

#### Patent Specifications.

The Editors of THE ARCHITECTS' AND BUILDERS' JOURNAL.

SIRS,—It may perhaps be of interest to some readers to learn that the price of printed specifications of inventions issued from the Patent Office is to be reduced from 8d. to 6d. per copy (including inland postage); this reduction to come into force on and after January 1, 1915.

It may be recalled that when the Government first issued specifications of inventions the charge per copy was according to the number of pages of letters and the number of sheets of drawings, the result being that in some cases a single copy of a specification cost as much as £1 or £1 5s. When the uniform charge of 8d. was introduced, this charge applied to all specifications, including those previously published at much higher price, and the new charge of 6d. will also apply to all specifications.

BROWNE AND CO.,  
Patent Agents, 9, Warwick Court, Holborn,

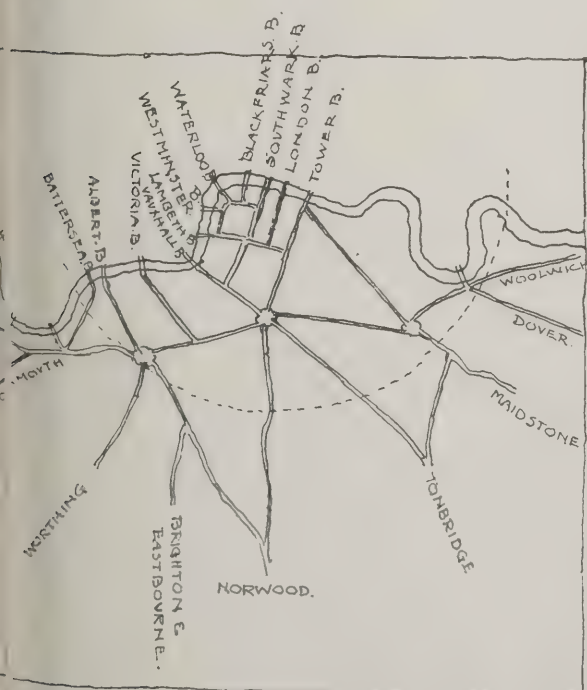
#### The Future of the Surrey Side.

The Editors of THE ARCHITECTS' AND BUILDERS' JOURNAL.

SIRS,—In connection with Mr. Waterhouse's able report on "The Future of the Surrey Side," reported in your issue for last week, I should like to draw attention to a point which seems to have been hardly sufficiently considered.

In his diagrams III. and IV. Mr. Waterhouse shows country roads being converged to the centre of the county. Now it is fairly certain that if all roads lead to a single spot there is likely to be congestion. In fact, if all roads lead the same way the people on the Surrey side (wherever they may desire to go) will all be led in one direction.

We have therefore, on the accompanying diagram, endeavoured to show a trunk road system by which it



ETCH PLAN OF TRUNK ROAD SYSTEM ON SOUTH SIDE OF THE THAMES.

will be possible for people coming in from the country, on entering the outskirts to get direct to any part of the city, or even to go through to northern trunk roads. This is done, not by one circular road, but by *splitting* the country roads as they come in, and by keeping them *away* from the centre of the city. Only some of the bridges are trunk bridges it will be noticed, the others are for purely civic purposes, and the streets thereto would be laid out axially.

The smaller roads and streets in the areas bounded by these trunk roads would be arranged to miss the main centres and thus avoid confusion. If the traffic were thus sorted out and the roads grouped according to classification I do not think there would be any trouble about congestion or transit either.

QUO VADIS.

#### War on German Trade in Belgium.

To the Editors of THE ARCHITECTS' AND BUILDERS' JOURNAL.

SIRS,—Through the columns of your valuable paper may we draw the attention of English manufacturers to the splendid opportunity they have at present in making arrangements to be represented in Belgium?

Amongst the good class of refugees there are a number who, before the war, acted for German firms, and who are anxious to replace these by English manufacturers of similar goods.

These refugees are here unoccupied, and would be very pleased to spend their time in acquiring a knowledge of the particular manufactures they will be called upon to introduce later.

The Belgian Chamber of Commerce in London, 24, St. Dunstan's Buildings, St. Dunstan's Hill, E.C., is at the disposal of manufacturers for the purpose of putting them into communication with suitable applicants for such posts. We further take advantage of the present to invite all employers who have vacancies for foreign correspondents, etc., to let us have particulars of their requirements, as the enforced idleness is very irksome to our countrymen.

For the Belgian Chamber of Commerce in London,

L. GODCHAUX, President.

P. DORCHY, General Secretary.

#### Mobilisation as an Architectural Opportunity.

To the Editors of THE ARCHITECTS' AND BUILDERS' JOURNAL.

SIRS,—In reading the very interesting article entitled "Architecture and the War: Some Casual Impressions," I was particularly struck by the author's confirmation of one's surmise as to the freshness of view that should come with so complete a change of occupation, of scene, and of thought, as that which ensues when the architect drops his T-square and shoulders his rifle.

It is, I suppose, the Territorials on home service who have the more leisure, if not the better opportunities, for observation; and as, between them, they cover the whole of the kingdom, the architectural outlook is considerably enlarged as well as freshened, for it is pretty safe to assume that there is a sprinkling of architects in almost every regiment, and that they will make the most of their opportunities of seeing, and perhaps of studying, the buildings within their purview. Will they not follow G. J. H.'s example, and put their impressions on record? I feel sure that this Journal would not deny them hospitality.

F. J. R.

[The architectural experiences of professional men serving in the forces should be worth recording, and we would gladly comply with our correspondent's request.

—EDS. A. AND B.J.]



## A NEW METHOD OF BASEMENT WALL CONSTRUCTION.

In many of the large new office buildings in Chicago, having foundation piers sunk through the clay bed to the rock, a portion of the area is excavated for two, three, and even four floors below ground. These excavations have to be surrounded by heavy retaining walls to resist the pressure of the clay. The walls are built in trenches excavated to the required depth, and lined with sheeting, against which are placed waling timbers, braced by cross timbers or "drums," having a jack screw or trench brace between one end of the drum and the waling timber.

The customary method is to put "forms" or shuttering in the trench thus braced and then to deposit concrete up to the level of the bottom of the first row of drums. This layer of concrete is allowed to set for 12 to 24 hours. New drums are then placed behind the concrete-filled portion of the form. Then the drums and jacks of the row above the concrete are removed, after which the forms are set for the next course, and another layer of concrete is deposited to the level of the next row of drums (this is indicated by the horizontal dotted lines in the upper drawing of the accompanying illustration), the operations being continued successively until the top of the wall is reached. The outer lagging is left in place, but the outer waling timbers are removed at the same time as the drums. This method has several disadvantages, one of them being the slow rate of progress on work where rapid construction is desirable. Moreover the walls are not monolithic, but are composed of a series of separate horizontal courses, and although these are united by

keys or ribs, the arrangement is not well adapted to resist heavy lateral pressure. Certain floor panels in the floors above must be left open to allow a reinforcement of vertical steel beams, to be placed, as it is not satisfactory to use steel-rod reinforcement, owing to the large number of horizontal joints and the difficulty of counter-acting shear. Also the pressure of the earth has to be resisted by the green concrete, which in many cases is displaced or distorted to some extent. This allows a movement of the clay body, which may affect adjacent buildings.

In the construction of the Lumber Exchange Building at La Sellé and Madison Streets, a new method was adopted for building the sub-basement retaining walls, the lower sub-basement floor being about 50 ft. below the street. The trenches were excavated in alternate sections, the joints being at the centres of the columns. They were 6 ft. wide, and sunk in 3-ft. sections, each section being sheeted with 3-in. by 6-in. vertical lagging and two lines of 8-in. by 8-in. horizontal waling. The 8-in. by 8-in. drums were then placed between the waling timbers and made as tight as possible by means of the screws. This process was continued lengthwise in 6-ft. sections along the trench, and then downward to the desired elevation.

After the excavation of the trench had been completed, about 6 in. of concrete was deposited for a working floor, and forms were built for the full height of the wall. The forms were cut away around the drums, which were boxed in with 1-in. lumber. Then the trench was concreted from base to top in one operation, thus giving a homogeneous wall, which was allowed to set for about two weeks, the pressure of the earth during that time

been resisted by the drums or struts, not by the forms and the concrete of the other method described.

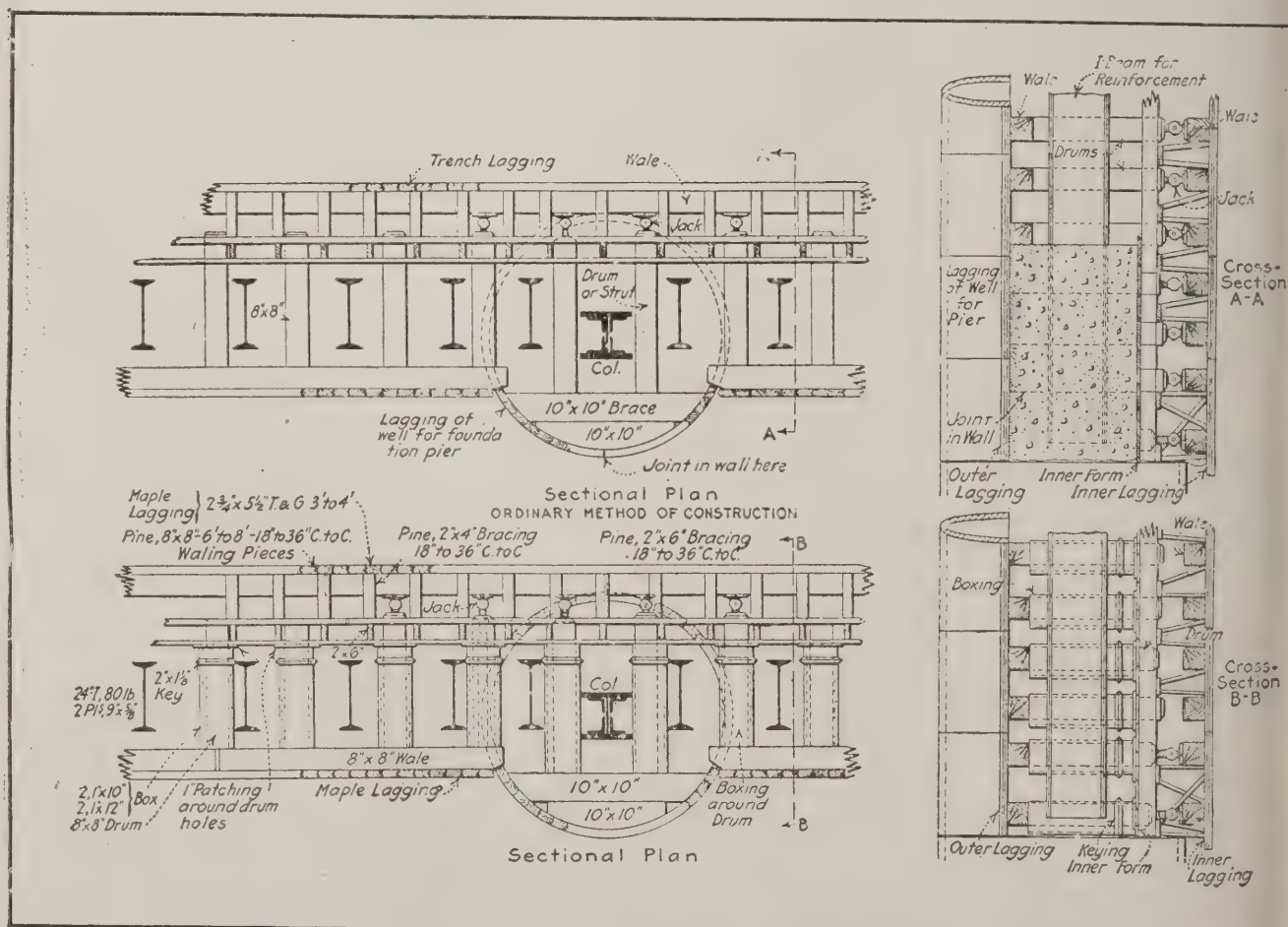
The outer waling and lagging are in place. When the basement is excavated the inner lagging is removed, the drums are pulled out of their boxing, the inner form and boxes taken down, the holes left by the boxes are then filled with a dry concrete, well rammed, and held in place by the notches or keys formed by the keys. The method is shown in the lower drawing.

The building in question is a six-storey office building about 135 ft. by 101 ft. on plan. The architects, Messrs. Holabird and Roche, of Chicago, and the new method of basement wall construction was devised by them.

## OBITUARY.

Mr. George Benfield.

We regret to record the death, at the age of sixty-five, of Mr. George Benfield, of the well-known firm of Messrs. Benfield and Loxley, builders, Oxford. The works carried out by the firm in Oxford are the large block of buildings for New College facing Hertford Street, completed some twelve years ago, and the new block at Hertford Street (connected with the main portion of the new bridge), the Magdalen College House, important work at Magdalen College, practically the rebuilding of Merton Street (formerly known as St. Giles Street), and the Eastgate Hotel; also the Schools of Rural Economy and Forestry, Parks Road (nearing completion), the chapel at Pusey House, and the dining hall at Manchester College.



DIAGRAMS ILLUSTRATING A NEW METHOD OF BASEMENT WALL CONSTRUCTION.



## SPECIAL LEGAL REPORTS.

## Liability for an Accident to a Builder's Carpenter.

*Green v. G. Mills and Co., Ltd.*

November 4. King's Bench Division. Before Justices Banks, Ivory, Lush, and Atkin.

This was an appeal by the defendants against the decision of his Honour Judge Atkin at the Lambeth County Court in an action brought by George Green, a carpenter, living at New Cross, for damages against the defendants for personal injuries sustained in the performance of work connected with the erection of new buildings at Rotherhithe for Messrs. Pretty and Hale, a firm of warehousemen. The contractors for the erection of the buildings, by whom Green was employed, were Messrs. Harbrow, of South London, and the defendants were the actors for the fixing of sprinkler pipes on one of the large corrugated sheds. The judge gave judgment for plaintiff for £125 as agreed damages, and from this the defendants appealed.

Mr. Ellis Hill appeared for the appellants and Mr. Thorn Drury, K.C., and Mr. Doughty for the respondent Green. It appeared that Messrs. Harbrow were employed in the execution of certain works on the premises of the building owners, and the defendants were engaged in putting up the pipes, and they had to lay pipes through the walls of the building, which was of corrugated iron. It was the business of the contractors to make the holes through which the defendants had to lay their pipes. The defendants had erected a ladder on the trestles, which their men used, and the defendants, although they had allowed the contractors' men to use the ladder to get to places where they had to make the holes. On the occasion of the accident the defendants' men put the ladder on to the trestles, but they did not take it away because they were called away to do another job. It was alleged that, without any actual invitation, the plaintiff climbed the scaffold and climbed up the ladder to do his work, and, owing to the ladder not having been lashed and secured, he fell and was injured.

Mr. Hill argued that there was no evidence of negligence on the part of the defendants such as gave the plaintiff a right of action.

Mr. Drury contended that there was an invitation to the plaintiff to go on the ladder, and that if there was an invitation the plaintiff was a licensee.

The appeal was allowed, Mr. Justice Atkin saying he could find no evidence of a hidden trap known to the defendants but not known to the plaintiff. There was no evidence of liability on the part of the defendants.

Mr. Justice Atkin agreed, and said there was no obligation on the part of the defendants to the plaintiff.

Judgment for defendants with costs. Appeal granted.

## A Sequel to the Building Strike.

*Mathers v. Penfold.*

November 6. King's Bench Division. Before Justices Atkin, Banks, Ivory, Lush, and Atkin.

This matter came before the court on a reference made by the magistrate at the Marlborough Street Police Court, Mr. Mead. The respondent was Mr. G. W. Penfold, a member of the United Order of General Workers, who had been charged with an offence under the Act of 1824 and dismissed. Penfold's alleged offence was

committed during the building dispute in London. The complaint against him was that he solicited alms from various people on May 8 last, in St. James's Street, Westminster, by offering for sale certain tickets issued by the Shamrock Lodge of the union to which he belonged, with the object of raising funds for those out of work by the strike and their families. The tickets were in the nature of a check on the collectors. At the time of the charge the Shamrock Lodge had 140 of its 517 members out of work by reason of the dispute, and of these Penfold was one.

The money received by the collectors was equally divided between the men unemployed, and in the week prior to the alleged offence each received 7s.

The contention of the police was that the action by Penfold rendered him amenable to the clause of the Act, which states: "Every person wandering abroad or placing himself or herself in any public place to beg or to gather alms shall be deemed an idle and disorderly person within the true intent and meaning of the Act." To this it was urged in reply: (1) That the respondent was not of the class of person against whom the Act was directed; (2) That he was going about in an orderly way when soliciting alms, and for an object which was not unlawful; (3) That his action was in the same category as the Hospital Saturday street collections.

Mr. Travers Humphreys argued the case for the appellants, the police authorities, and Mr. Langdon, K.C., represented the respondent, Penfold.

The Court, after hearing the legal arguments, dismissed the appeal, holding that the magistrate arrived at a right decision.

## What is the Meaning of "Single Private Drain"? Judgment.

*Kingston-upon-Hull Corporation v. North-Eastern Railway Co.*

December 8. Chancery Division. Before Mr. Justice Sargant.

His lordship delivered his reserved judgment in this action, by which the plaintiffs sought to establish that defendants were liable for the repair of a 12-in. drain connecting certain property with a sewer running down the Hessle Road. (See our issue of December 9, p. 349.)

Mr. P. O. Lawrence, K.C., appeared for the plaintiffs and Mr. Ryde, K.C., for the defendants.

His lordship, in giving judgment, said the question was whether the plaintiffs were entitled to enforce a charge upon the defendants for a sum expended in removing defects to a conduit laying under Hessle Road, and that depended upon whether it was or was not a drain maintainable by the corporation. The road under which the conduit in question ran was a cul-de-sac communicating with the back yards of cottages belonging to the railway company. These cottages were erected about 1861 upon land belonging to the railway company. The Corporation had served the defendants with notice to abate a nuisance, and then had done the work themselves. The cost was £139 6s. 6d., which was charged to the railway company. The company had paid £47 12s. 6d., which was the amount spent upon the drains and the road gullies, but had declined to pay £91 13s. 9d., which represented the amount spent upon the 12-in. conduit. They disputed their liability in respect of the road gullies, but, the amount being small, they paid it on condition that such payment was no waiver of their rights in respect of the 12-in. conduit. One of the points to be decided was whether Hessle Road was a public highway, and on this his Lordship said that, although the

road had been dedicated to the public as a highway, inasmuch as they were permitted to use it, the soil of the road still remained in the defendant company. With regard to another point raised, he could not think that a single private drain must necessarily be a drain limited to the draining of houses or tenements, and became a public sewer immediately it drained land. It seemed to him that where a drain pipe was used exclusively for the drainage of certain private houses, and the public had no right of access to it, it remained a private drain, although surface water from a road might be drained into it. A public sewer meant a sewer that served the public generally. Whatever rights of way the public had acquired over this road the ownership of the surface was left in the railway company, and the corporation had acquired no rights to break it up in order to get at this conduit. The railway company were left in exclusive possession of this 12-in. pipe, and the result was that the corporation were entitled to recover the amount of money they had expended upon it. He accordingly made a declaration establishing their charge, and gave them the costs of the action.

## SOCIETIES AND INSTITUTIONS.

*Mr. Aymer Vallance on Reims Cathedral.*

At last week's meeting of the Architectural Association, Mr. Aymer Vallance, F.S.A., gave a lecture on Reims Cathedral, illustrated by a fine series of lantern slides, those of the sculptural details being especially interesting. Mr. Vallance dealt almost as fully with the historical associations of the cathedral as with its architecture. He pointed out that, unlike Canterbury and Westminster, Reims was not a pilgrimage cathedral. There was no body of a saint enshrined there to attract pilgrims and their gifts; Reims owed its prominence to the fact that it was a coronation cathedral. It became the shrine and token of the ideals and aspirations of the French nation. The present structure was not the first built on the site. The original building was erected in the fourth century by St. Nicaise, and was followed by other churches. The first stone of the present structure was laid in 1212, and the entire cathedral completed about 1430. It was massively built, and, as Thomas King had pointed out in his book on mediæval architecture, there was throughout no deviation from the upright. The piers were carried out in large and selected materials, well-jointed and set, and the vaulting was solid, and skilfully supported by flying buttresses. In spite of the fierce bombardment by the Germans, the stone vaulting still remained whole; other cathedrals—Amiens, for instance—could not have withstood the shock. In the building of Reims Cathedral, however, the original scheme had not been carried out. It was proposed to crown the western towers with spires of the St. Remi type, and to add spires to the other four towers; but this was never done. Until quite recently there was much doubt as to the name and personality of the architect of the cathedral—or, as he would have then been called, the master mason. But there ought to be no question about it, since the record was known to have existed in the shape of a pavement labyrinth, inscribed with the names of the first four master masons of the work. This maze, which must have dated from 1295, occupied the floor surface of the third and fourth bays of the nave, counting from the west. It was executed in black and white stones, and most probably conveyed



some meaning in connection with the masons' guilds not understood by the public at large. Unfortunately, this valuable record was removed bodily in 1878, being replaced by plain mosaic paving. However, before the labyrinth was destroyed, drawings had been made, and the names of the masons so rescued from oblivion. They were Jean D'Orbais, Jean Loups, Gauthier de Reims, and Bernard de Soissons. Mr. Vallance proceeded to show in detail and explain the beautiful sculpture work. Incidentally he pointed out that some of the figures shown in "The Last Judgment" had been mutilated, not by the Germans, but by "prudes on the prowl," in the early part of the nineteenth century. In the year 1780 they considered this row of nude figures indecent, and had them chopped about. Speaking of the sculpture as a whole, Mr. Vallance described it as "an extraordinary array of exquisite mediæval work, which ought never to have been treated with anything but reverence and respect." In conclusion he said that if only all the seven spires projected had been carried out, the cathedral would have presented a scheme unsurpassed by any other church of its kind in the world.

Mr. Louis Ambler, in proposing a vote of thanks to the lecturer, criticised the position of the row of sculptured figures of kings on the west front. This gallery was, he said, appalling in its height, and quite out of proportion to the rest of the building.

Mr. Ronald P. Jones said the massiveness of the ground plan showed that the cathedral had been planned on a larger scale than was actually carried out. He referred to the mistakes made in the non-technical press concerning the damage done to the cathedral by the Germans. It was reported that all the glass had been smashed in windows where there was, in fact, only tracery, and that the roofs had been burned, and the cathedral left "open to the sky," whereas the destruction of the timber roof had not affected the stone vaulting of the cathedral.

Mr. A. Belcher called attention to Professor Lethaby's contention that the architecture of Reims had largely influenced the construction of Westminster Abbey.

The following new members were elected:

#### ORDINARY MEMBERS.

|                                     |                                |
|-------------------------------------|--------------------------------|
| G. H. Binks (Bombay).               | F. W. Mathew (Dovercourt).     |
| J. C. C. Bruce (Newcastle-on-Tyne). | R. K. Miller (London).         |
| A. S. Cawthorne (Woldingham).       | W. J. M. Morrish (Gillingham). |
| W. D. Cresswell (London).           | I. D. S. Orbell (London).      |
| J. M. Eshelby (London).             | J. F. Pye (Grimsby).           |
| Harold Falkner (Farnham).           | S. C. Ramsey (London).         |
| G. C. C. Ferrier (Twickenham).      | H. O. Roberts (London).        |
| L. J. Gomme (Watford).              | J. G. Seppelt (London).        |
| J. M. Hobbs (Richmond).             | A. Sevastopoulo (London).      |
| G. H. G. Holt (London).             | J. S. Teasdale (Charlwood).    |
| C. A. Hudson (London).              | W. E. Valder (Croydon).        |
| L. D. H. Hutton (London).           | V. J. Wenning (London).        |
| S. G. Jeeves (Oxford).              | R. W. Wilson (London).         |
| F. A. McEvoy (London).              |                                |

#### COUNTRY MEMBERS.

|                                                |                                     |
|------------------------------------------------|-------------------------------------|
| Frank Abbey (Huddersfield).                    | H. W. Harrison, jun. (Northampton). |
| C. M. C. Armstrong (Warwick).                  | G. Salway Nicol (Birmingham).       |
| E. H. Bucknole (High Ongar).                   | J. P. Osborne (Birmingham).         |
| G. Cheesewright (Rotherham).                   | J. H. Shearer (Exeter).             |
| H. J. Dyer (Portsmouth).                       | C. B. Sherwin (Derby).              |
| H. Gregory (Leeds).                            | John Swarbrick (Manchester).        |
| J. M. Morrison (Prince Albert, Sask., Canada). | W. J. M. Thomasson (Bournemouth).   |
|                                                | A. E. Townley (Birmingham).         |

#### Architectural Craftsmen's Society, Glasgow.

On December 4 a paper on "Reinforced Concrete By-Laws" was read by Mr. T. G. Gilmour, A.R.I.B.A. The lecturer devoted himself to the London County Council regulations for the proper construction of reinforced concrete buildings and compared these with the rules at present in force in Glasgow. He gave details of the calculations required to arrive at the correct size of the various members and how the steel should be placed in order to get the maximum of strength with the minimum of metal.

#### Leeds and West Yorkshire Architectural Society.

A lecture on "The Churches of Caen and Neighbourhood" was given by Mr. James R. Wigfull, A.R.I.B.A., on December 3, amongst the many examples illustrated (by slides from the author's own photographs) being some smaller and lesser known churches of great interest.

#### London Street Improvements.

The London Society appeals to the public for support in connection with the proposed preparation by a committee of experts of a plan of London showing how future street improvements may be effected. It is suggested that the carrying out of such improvements would afford a solution of the problem of the relief of distress.

## COMPETITIONS.

#### New Board of Trade Offices, Whitehall.

We regret that the names of two of the firms of architects competing for the above were incorrectly given in our issue for last week. Instead of "Buckland and Heywood-Farmer," it should be "Buckland, Haywood and Farmer," of Birmingham; and instead of "Percy Thomas and Ivor Jones," it should be "Percy Jones, Ernest Prestwich, and Ivor Jones," of Cardiff and Leigh.

#### Trongate (Glasgow) Reconstruction Scheme.

The assessors, Mr. McDonald (City Engineer) and Mr. Alexander N. Paterson, F.R.I.B.A., have awarded the first place in this competition to Messrs. Honeyman and Keppie, of Glasgow, a premium of £30 and second place to Messrs. McKessock and Sons, Glasgow, and Mr. William Trisker; and a premium of £20 and third place to Mr. Alex. D. Hislop, of Glasgow. The estimated cost of the design placed first is £2,852, which sum includes £2,500 for the Mercat Cross and the renovation of the old Tron steeple.

#### Proposed School at Rosyth.

A committee of the Dunfermline School Board has been formed to consider the accommodation to be provided and the conditions to be drafted for the proposed competition in connection with the erection of a permanent school at Rosyth.

#### Royal Academy Schools.

The prize designs by students in the Royal Academy Schools were exhibited at Burlington House on Friday and Saturday last. The travelling studentship in architecture, value £60, tenable for one year—subject, "A Picture Gallery in a Public Park"—has been won by Mr. William H. Hamlyn; the silver medal and £20 for an architectural design, by Mr. James N.

Wilson; the silver medal and £10 for an architectural design (first-term student) by Mr. Harold C. Mason, and the bronze medal and £10 by Mr. James J. Swift; the silver medal and £30 for a design for the decoration of a portion of a building by Mr. George V. M. Frazer; and the bronze medal and £10 by Mr. Alfred C. Gardiner.

#### City Improvement, Bradford.

Designs are invited for the laying-out of the portion known as "the central" and for erecting suitable premises on. Author of designs placed first, second, and third will receive premiums of £300, £200, and £100 respectively. Should the Council retain the services of the author of the winning design, the fee for his services will be a matter for subsequent arrangement between the Council and the architect. Mr. Reginald Blomfield, R.A., has been appointed assessor. The designs must be prepared so as to comply with the Building Regulations now in force in Bradford, a copy of which will be sent to each competitor. The buildings erected must be at least six storeys high from the ground floor, exclusive of basement. They will be used for commercial purposes; the ground floor used as shops, with offices on the first floor, and warehouses over. The designs should not be too large, and are intended for Bradford trade purposes. The buildings should be faced with stone. The maximum widths of streets required by the Building Regulations is 60 ft. The designs should be accompanied by a statement of particulars and approximate estimate of the cost of carrying out the scheme, including statements as to material proposed to be used, and the relative value of building spaces to the area devoted to street purposes.

#### DRAWINGS REQUIRED.

(1) A block plan to a scale of 4 in. to 1 in., or 1-500. The buildings to be shown on this plan and coloured to form colour as distinct from open spaces, yards, etc. Roads, etc., light brown. Drains, sewers, or beck courses not shown on the competitive plans, where it is proposed to divert the course. (2) Complete full-figured plans, two sections, and elevations of a block of premises of each type to a scale of 1 in. to 1 in. The drawings are to be on separate sheets, and the cubic content estimate are to be printed on the back of the ground plan. (3) A perspective bird's-eye view of the estate.

A plan of the area in question may be obtained from the Town Clerk, Town of Bradford, to whom all queries should be addressed.

Designs to be received by the Town Clerk not later than March 31, 1915.

## LIST OF COMPETITIONS.

DECEMBER 31.—WORKMEN'S HOUSES, DUMFRIES.—The Town Council of Dumfries invite architects to submit designs for the erection of workmen's houses in the burgh. Particulars, Town Clerk, Dumfries.

[Members and Licentiate of the R.I.B.A., and Members of the Society of Architects, have been advised that negotiations are in progress with a view to amendment of the conditions of this competition.]

JANUARY 23, 1915.—WORKMEN'S HOUSES, DONCASTER.—The Town Council of Doncaster invite designs for the laying-out of a site of about twenty acres at Carr



the erection of 102 workmen's houses on four acres thereof on garden city lines. Particulars from R. A. H. Tovey, Town Clerk, Doncaster.

FEBRUARY 8, 1915.—WORKMEN'S DWELLINGS, CITY OF LIVERPOOL.—The Corporation of Liverpool invite designs for workmen's dwellings to accommodate about 500 persons, to be erected on the Rathbone et area. Premiums of £100, £50, and are offered, and the Council have appointed Mr. Henry Hartley, F.R.I.B.A., assessor. Particulars (£1 is., returnable) from Mr. Edward R. Pickmere, Town Clerk, Municipal Offices, Liverpool. ARCH 31, 1915.—STREET PLANNING, BRADFORD.—The Corporation of Bradford invite competitive designs for the re-planning of streets in the central area of the town. Mr. Reginald Blomfield, R.A., will act as assessor. Particulars (£1 is., returnable) from Frederick Stevens, Town Clerk, Town Hall, Bradford.

## CONSULTING ENGINEERS' FEES.

The Association of Consulting Engineers (hon. secretary, Mr. Alfred Herbert Esq., M.Cons.E., A.M.I.C.E., M.I.E.E., Victoria Street, Westminster) has just issued a booklet setting out a scale of the professional fees, with the rules under which its members work. For conventional work, it is stated, there is usually an agreed fee, or a commission on the total cost of works executed under the engineer's directions. The usual commission is: Where the amount of the contract exceeds £5,000, 5 per cent. on the cost of works; less than £5,000, 7½ per cent. on the cost. This commission covers the preparation of specifications and contract drawings, advising on tenders, selecting contractors, and directing the construction, but does not cover preliminary investigations, surveys, and reports, negotiations, and correspondence with third parties other than the contractors, the preparation of additional plans for local or other authorities, nor for expenses consequent on the failure of the contractor to carry out his contract, nor services in connection with arbitration proceedings, for which additional fees are payable, depending on the time and work involved.

## BOOKS RECEIVED.

"Modern Plumbing Practice," by J. H. Clarke. (Batsford.) 10s.  
 "The Curves of Life," by Theodore Lea Cook. (Constable.) 12s. 6d.  
 "Bricks and Artificial Stones of Non-Fireclay Materials," by Alfred B. Searle. (Methuen.) 8s. 6d.  
 "Liverpool Town Planning and Housing Exhibition, 1914: Transactions of the Conference." (University Press of Liverpool.) 7s. 6d.  
 "Early Renaissance Architecture in England"—2nd Edition, by J. Alfred Semple. (Batsford.) 15s.  
 "Principles of Building and the Woodwork of the House," by H. Avray Tipping. (Country Life.) 25s.  
 "The English Parish Church," by Dr. J. H. Cox. (Batsford.) 7s. 6d.  
 "Religious and Patron Saints of the English Churches," by Francis Bond. (Oxford University Press.) 7s. 6d.  
 "A Guide to Gothic Architecture," by J. H. Bumpus. (T. Werner Laurie.) 10s. 6d.  
 "Study of the Circular-Arc Bow-Window," by A. H. Gibson. (Constable.) 10s. 6d.

## NEWS ITEMS.

### For King and Country.

The "South Wales Daily News" publishes the names of fifty-nine South Wales and Monmouthshire architects now serving with the colours in various units of Lord Kitchener's Army.

### Drawings by Alfred Stevens at the Tate Gallery.

Among the recent additions at the National Gallery of British Art are two drawings by Alfred Stevens for the roundels of the doors at Dorchester House.

### Renovation of Stonework.

At the St. John's Institute, Sunderland, the artificial stonework is being treated with "Pudlo." Apart from the waterproofing properties of the powder, it is reported to give artificial stone a bright and clean appearance with clear-cut arrises.

### Price of Building Materials.

At last week's meeting of the committee of the Dublin Trades Employers' Association appointed to record the fluctuations in the price of building materials during the war, the following variations were noted: White Norway, rise of 8 per cent.; red 7 x 1, P. and J., 7 per cent.; spruce, 2½ per cent.; copper, increase of £4 5s. per ton; spelter, increase of 15s. per ton; corrugated iron, decrease of 6s. 6d. per ton.

### English Norman Doorways.

An exhibition of photographic enlargements of English Norman doorways, kindly lent by Mr. Charles E. Keyser, M.A., F.S.A., is now on view at the Museum and Art Galleries, Reading. The series comprises 214 examples selected from a large collection. They comprise the finest specimens from Berkshire, Buckinghamshire, Oxfordshire, Gloucestershire, Yorkshire, Norfolk, and elsewhere, together with a special selection of the doorways having figure or symbolical sculpture on the tympanum. This exhibition offers a unique opportunity of obtaining a comprehensive idea of the wonderful and elaborate skill of the Norman masons in England.

### The London Gantry Collapse.

At the Lambeth Coroner's Court last week an inquest was held on a builder's signalman named Cooper, aged twenty-one, who died as the result of the collapse of a timber gantry at the new County Hall, Westminster, in the course of a gale on December 4. Some workmen on the ground saw a baulk of timber come down. Next they heard the timbers cracking, and then the whole thing collapsed. One man died on the way to the hospital, but the other was still alive and able to give some account of what happened. He survived a fall of 115 ft. on to hard concrete! Evidence was given that the accident was due to the jib hitting the back stay, probably through the force of the gale. The inquest was adjourned for the attendance of the injured man.

### Reinforced Concrete for Factories.

At a time when, as part of the scheme for the capture of enemy's trade, the erection of new factories, or the extension of existing buildings is under consideration, the merits of the Kahn system of reinforced concrete call for notice. The economical nature of the construction may be gauged from the following list of some recent factories erected on the Kahn System:—Arrol Johnston Motor Car

Works, Dumfries, cost per ft. cube, 2½d.; Albion Motor Car Co., Works, Scotstoun, 2½d.; Gramophone Co., Works, Hayes, 3d.; Birmingham Small Arms Co., Gun Factory, 3d.; Siemens Brothers, Rubber Works, Woolwich, 3d.; Messrs. Vickers, Ltd., New Works, 3d. During the past two years some thirty factory buildings, varying in cost between £6,000 and £80,000, have been erected on the Kahn System, and the experience thus gained by The Trussed Concrete Steel Co., Ltd., regarding the best application of reinforced concrete to this class of construction will no doubt prove of advantage to all who are interested in further extensions or in new works.

### New Church at Haywards Heath.

The first section of the new Congregational church and schools at Haywards Heath is now being carried out, comprising a nave with double transepts, providing accommodation for 300 persons. The contract, amounting to £2,049, has been let to Mr. T. White, of Haywards Heath. Messrs. George Baines and Son, of London, are the architects.

### Change of Address.

Messrs. Pilditch, Chadwick, and Co., architects, have removed to new offices at Old Bond Street House, 6, 7, 8, Old Bond Street, W., owing to the contemplated rebuilding of the block of premises in Pall Mall East in which they have practised for the past twenty years, following the thirty years the firm spent at 17, Parliament Street.

Messrs. Robey E. Carpenter and Son, quantity and measuring surveyors and arbitrators, Leicester, have removed from Gotha Street to more central premises—Palace Chambers, Belgrave Gate, Leicester, where their practice will be continued as heretofore.

### The Art of Architectural Photography.

Books have been written around that vexed question: Can a photograph be a work of art? Hence, in the space of a brief note, it is not possible even to sketch the barest outline of the matter at issue. But an exhibition like that which has just been held at the Camera Club in John Street, Adelphi, shows what delightful effects can be produced when an artist controls the mechanical process of photography. The exhibition comprised sixty prints by Mr. James McKissack, all of them interesting and many of them possessing real artistic quality—like the view of the lower part of Rouen's great façade, the mighty tower of Malines Cathedral, the dramatic grouping of Boulogne, and the no less inspiring vision of Edinburgh Castle. It is photographs like these that uphold the claims of camera art, and Mr. McKissack is to be congratulated on his ability to produce such pictures.

## ENQUIRY ANSWERED.

### Quantity of Cement in Concrete.

K. G. writes: "Kindly state how many pounds of cement would be contained in a cubic yard of concrete mixed in the proportions of 4, 2, 1; 3, 2, 1; 3, 1, 1; 2, 1, 1; 1¾, ¾, 1."

—The writer knows of no standard data available for the quantity of cement required for use with various proportions of aggregate in making concrete and renderings. Many experiments have been made, but they apply only to the particular circumstances, and especially to the nature of the aggregate. H. A.



## THE NEW TREATMENT OF FIRES AND FIREPLACES.

A DEPARTURE OF GREAT INTEREST TO ARCHITECTS.

NO profession is so hampered and hindered as the architect's in the achievement of an artistic conception, more particularly in respect to details. Indeed, many architects must have felt that fate and the individual conspired against them over this, so vexatious are the limitations often imposed by the client, the builder, the decorator, the surveyor, or the district authorities.

Even when patience and perseverance have overcome these difficulties, the designer of a modern house is faced with the solution of a mass of intricate detail-planning, and this must be undertaken always with the knowledge that upon the apparently small points the comfort of the latter-day residence largely depends. How often one finds a house that is admirably planned as to situation, accommodation, construction, and the broad necessities, spoiled by neglect of the small, intimate matters—by lack of cupboard room, by windows of an inconvenient design, by ill-equipped bathrooms, by lighting that is not well arranged.

An ever-present source of discussion and a not infrequent ground of dissension is the important question of fireplaces. It is here that individual preferences are brought most into evidence, and here also that difficulty is most frequently encountered in combining the useful with the pleasing.

The problem, indeed, is a rather complex one. In the first place, the question of design must be considered from the point of view of suitability with the general scheme of decoration. The fireplace must conform with the rest of the room in size, in period, and in design. The greatest comfort with the greatest decorative value is what the designer strives to achieve, and this end can only be attained where concentrated skill and thought are given to the matter.

Another important consideration is that of the fuel to be employed. Coal fires and gas fires must be compared and contrasted. Many people will always adhere to coal either from sentiment, from an artistic appreciation of the coal fire's warm flickering light and the pleasant occasional sound of the red-hot embers settling in the grate, or from mere force of habit; but, on the other hand, persons of all tastes are among the advocates of the newer fuel, which has advantages of convenience and cleanliness that cannot be gainsaid. Modern design has produced gas fires that can be and are employed with excellent results, both hygienic and artistic, and these excellent contrivances are being used more and more not only in offices and the like, but also in rooms where appearance is of high importance.

The cardinal point of fuel being decided, it still remains to realise how the particular fire chosen will look in the surroundings that await it, or, if the decorative scheme of the house is not yet settled, it remains to choose the architectural style that best accords with the client's feelings and requirements.

In a showroom recently elaborated in Oxford Street is everything to help, suggest, and inform the architect or his client. The prospective buyer or his advisor is not asked to waive his individual preferences or convictions in the matter of fuel, for the best gas fires are shown side by side with the latest developments in grates for burn-

ing coal, and this spirit of broadmindedness is not the least charm of this fascinating gallery.

The plan that has been followed throughout is to build the fires substantially into their places, so that they can be lighted and shown at work under the actual conditions which any of them will be called upon to occupy.

We are used to seeing appliances of this kind displayed in a chilly isolation and we have accustomed ourselves to supplying the appropriate mise-en-scène as well as we have been able by an effort of the imagination.

It is not until properly built-in fires have been actually seen that it can be realised how poorly the imagination serves such a purpose, nor what a help such an arrangement must be to everyone who is anxious to choose the very best model for his particular purpose and to make no mistake in such an important matter.

The student of domestic architecture will be charmed with the knowledge shown in this luxurious gallery and the craftsman will delight in the skilful care with which each design has been carried out. Everything is perfectly finished, everything is of the highest artistic value, everything is solid and genuine, everything is accurate and dependable.

An example of the domestic decoration of each important period has been carried out with the most meticulous accuracy, and, inasmuch as the fireplace has always been the central point of human interest in every room since houses were first built, these examples are peculiarly characteristic of the styles severally treated.

Here is a Gothic mantel, the conventional decoration following the lines of the stonework.

Cromwellian, Jacobean, Georgian, Queen Anne, all are well represented, as well as the work in the styles associated with such great designers as Adam, Chippendale, Hepplewhite, and Sheraton.

Examples are also given of fireplaces set in surroundings that do not follow rigidly the convention of one period, but skilfully combine the more pleasing characteristics of modern and ancient practice. Others, again, forsake the typical for the individual expression, as where a marble moulding of a particularly chaste and simple beauty has been literally copied from a fireplace at Hampton Court.

What strikes the wanderer into this place of homely beauties with most astonishment is the thoroughness with which the fireplaces are shown in appropriate settings. An early fireplace is set in a wall beautifully adorned with panelling; beside it is a log box, above it sconces of brass or silver. A later example will be shown with all the modern characteristics of delicate wall-papering, deep hearthrugs, gleaming fender, and cosy latter-day furniture.

These exhibits—for they are no less—have been installed in spacious premises at No. 60, Oxford Street, by Messrs. Davis and Co. The name of this firm has long been familiar to the architectural and allied professions. They have recently associated with themselves the makers of the Nautilus, the latest form of barless coal grate, and now manufacture both their famous gas stoves, and the grate that is claimed to be the most economical and smokeless appliance for burning the older

fuel. They have shown, moreover, that they are something very much more important and helpful than mere manufacturers of stoves only, and architects in particular will find very much in their rooms that is suggestive, and the valuable. The secret of Messrs. Davis's success in this matter of realistic arrangement is that they are skilled designers, preparers of every kind of scheme, domestic decoration, and understand the subject from the simplest of wall- and paint schemes to artistic achievement in panelling beautifully designed and carried out in appropriate oak, walnut, mahogany.

When he has thoroughly digested the infinite possibilities of comfort here displayed, the visitor will be taken to another floor, where he may see all the latest developments in cooking appliances, heaters, and kitchen apparatus, as well as a fresh assortment of fires of the less mental kind for bedrooms, offices, and like.

Here are gas-stoves large and small, both in their settings and exposed, mantels without number, copper work both plain and enamelled—heated by gas cookers, gas-heated radiators, geysers, gas-heated hot-water circuits, cascade geysers designed specially for playing shower-baths. The mahogany-legged object in the middle is a beef-tea extractor.

On every side are good examples of lighting fixtures; sconces with descent gas lights that simulate chandeliers, single and double brackets, all provided with artistic shades that play their full beauty and value.

In one corner is a model kitchen, a complete set of gas appliances—complete hot plate, with a novel steel deflector, a radiator and hot-water circulator.

This is a room to delight every master of a house, for the appliances here are all planned with a view to saving labour and dust, so that the place where the food is prepared may be always less.

In another corner is a model bathroom showing a luxurious bath, with an all set of taps which operate the plunges, showers, and needle-baths the modern sybarite demands.

And as a final contrast there is shown a complete cooking installation on a scale, such as one may imagine in a kitchen at the Ritz or the Savoy.

Messrs. Davis have expended their generous energy upon every subordinate and ancillary branch of their important industry.

Their enterprise, no less than their really high artistic achievement, bring its reward and set its example from this time inwards, every buyer has seen the showrooms at 60, Oxford Street will acclaim their interest and fulness, and every fellow-member of the heating and lighting trade will acknowledge an emulous admiration.

Every architect should pay a visit, better still, several visits—to Messrs. Davis's showrooms, for there they will find representative coal fires and gas fires every description in actual use. Such inspection is far less wearisome than examining photographs and far more constructive than searching through catalogues that were ever printed.



*A CHEF D'OEUVRE OF REINFORCED CONCRETE  
ON THE KAHN SYSTEM.*

THE LARGEST REINFORCED CONCRETE DOME IN THE WORLD. CONSTRUCTED ON THE KAHN SYSTEM. :::: 124 ft. 6 in. span.



*The Dome of the Melbourne Public Library.*

*Messrs. Bates, Peebles & Smart, Architects.*

*Apart from steel-constructed domes, this dome is only surpassed in span by that of the Pantheon, which is 142 ft., and of St. Peter's, Rome, which is 137 ft. The Melbourne dome illustrated above covers an octagon, and the span between opposing inside faces of tension band is 124 ft. 6 in., St. Sophia at Constantinople being 105 ft., and St. Paul's 102 ft. The Melbourne dome is, however, the largest Reinforced Concrete dome, and was carried out to the designs of the Trussed Concrete Steel Co., Ltd., of Caxton House, Westminster, who were the Consulting Engineers for this part of the work, with Kahn System Reinforcement. The top of the lantern is 114 ft. above the level of the reading-room floor.*

THE TRUSSED CONCRETE STEEL CO., LTD.,  
52, CAXTON HOUSE, WESTMINSTER, S.W.

*N.B.—The Trussed Concrete Steel Co., Ltd., will be glad to collaborate with Architects and Engineers on any construction, and place at their disposal the skill and experience of their Staff of Specialist designers.*



## PROJECTED NEW WORKS.

*Isolation Hospital, Skipton.*

Skipton Rural District Council have had plans prepared for the erection of a small-pox hospital near Waterford Ghyll.

*Town Planning, Grays, Essex.*

The Local Government Board have given authority to the Grays (Essex) Urban Council to prepare a town-planning scheme.

*Houses, Leeds.*

Leeds City Council have decided to erect forty-eight semi-detached workmen's dwellings on the Ivy House Estate, York Road, Leeds, at an estimated cost of £9,953.

*School, Dunfermline.*

The Works Committee of the Dunfermline School Board have approved a site for the purpose of a new school at Crossgate to accommodate 650 pupils.

*Houses, Holyhead.*

The Holyhead Council have instructed their General Purposes Committee to ascertain what land can be acquired for housing purposes. A £5,000 scheme is suggested.

*Examination Hall, Aberdeen.*

The Aberdeen Dean of Guild Court have passed the plans of Messrs. A. Marshall Mackenzie and Sons, architects, for a new examination hall in connection with King's College, for the Aberdeen University Court.

*Schools, etc., Birmingham.*

Permission has been given the Birmingham Education Authority to borrow £12,655 for the erection of the first portion

of a new Council school in Ryland Road, Erdington. The Corporation have approved the proposal to purchase a site for a special school for mental defectives in Selly Park Road.

*New Schools, Chesterfield.*

Chesterfield Town Council have decided to rebuild Soresby Street School at a cost of £6,380, and to erect a new school at Jawbones Hill, Derby Road at a cost of £5,460, subject to the L.G.B. sanctioning a loan for this purpose.

*Houses, Bognor, Sussex.*

Bognor Urban Council contemplate the erection of forty houses at an estimated cost of £250 each in Upper Linden Avenue. Plans have been prepared by the Surveyor, and four houses are to be put in hand as soon as possible.

*Housing Scheme, etc., Eastbourne.*

The municipal scheme for workmen's dwellings at Eastbourne has been approved by the Local Government Board, who, however, suggest that to keep rents low some houses should be smaller than was originally intended.

The guardians have decided to convert the new nurses' home into a military hospital.

*Plans Passed: Bolton.*

Bolton Corporation have approved the following building plans: George Sykes, amended plan of two houses, 18 and 20, Hill Cot Road; J. T. Hamilton, amended plan of houses in Westcliffe Road, both in Astley Bridge; Bolton Wagon Co., rebuilding of workshops in Viking Street, Great Lever; T. E. Smith, billiard room and garage, 162, Chorley New Road; Mr. Lonsdale, addition to bakery, Thornley

Avenue; Dickinson and Co., store, Fairclough Street; African Piassava boiler shed, Bow Street; A. Hobson, addition to premises, 22, Chorley New Road; R. Paiton and Son, new office, Br. Street; J. Sharman and Sons, alteration to premises, Spinners' Arms, Lyon Works; W. G. Lipscomb, shooting range, Grammar School; R. Gorst, addition to block to the Industrial School.

*Additions, Glasgow.*

Glasgow Town Council have approved a scheme for additional bedrooms to the Clyde Hospital at an estimated cost of £3,000; also additional bedroom accommodation at Auchill Hospital (£4,000).

*Housing, Dartmouth.*

Dartmouth Town Council have decided to formulate a housing scheme at an early date.

The Council is co-operating with the neighbouring urban and rural councils in preparing a scheme for the establishment of a central isolation hospital.

*Nurses' Home, Paddington.*

The Paddington Guardians have instructed their architect to prepare specifications and quantities for the erection of a nurses' home. They have also confirmed a recommendation from the primary Committee urging the need for the provision of a new operating theatre.

*Workmen's Dwellings, Birkenhead.*

Birkenhead Town Council have referred from the Housing Sub-Committee for approval, sketch plans and drawings, by T. T. Rees, for the laying out of the Brook Estate, for the erection of workmen's dwellings. The Local Government Board are to be asked to assent to the acquisition of land for this purpose.

# HOMAN'S FIRE-RESISTING FLOORS

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BLOCKS**

**ROCK  
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GORTON.**

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GORTON.**

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## CONSTRUCTIONAL STEELWORK.

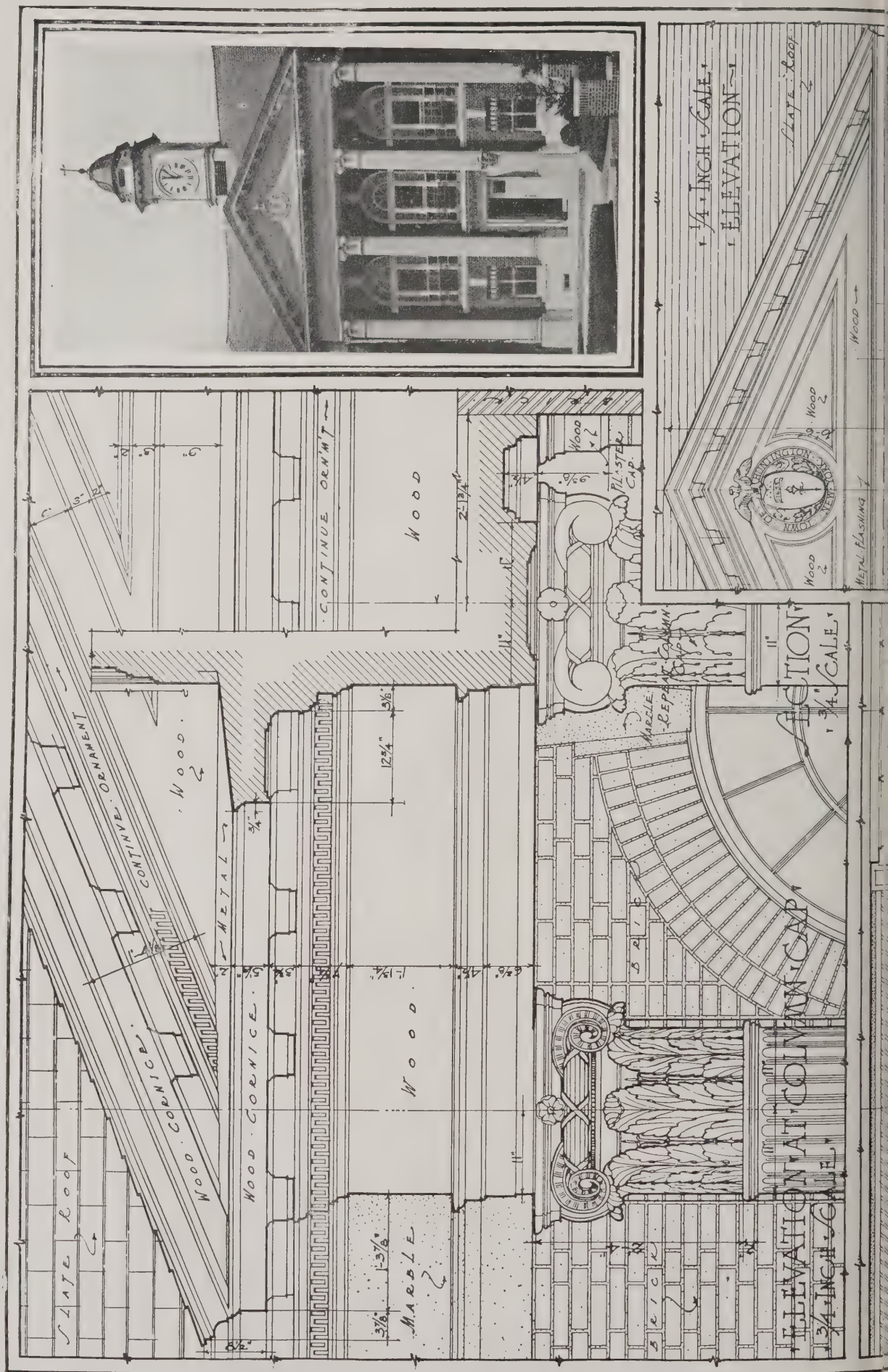
# HOMAN & RODGERS, Engineers.

10, Marsden St.  
MANCHESTER.



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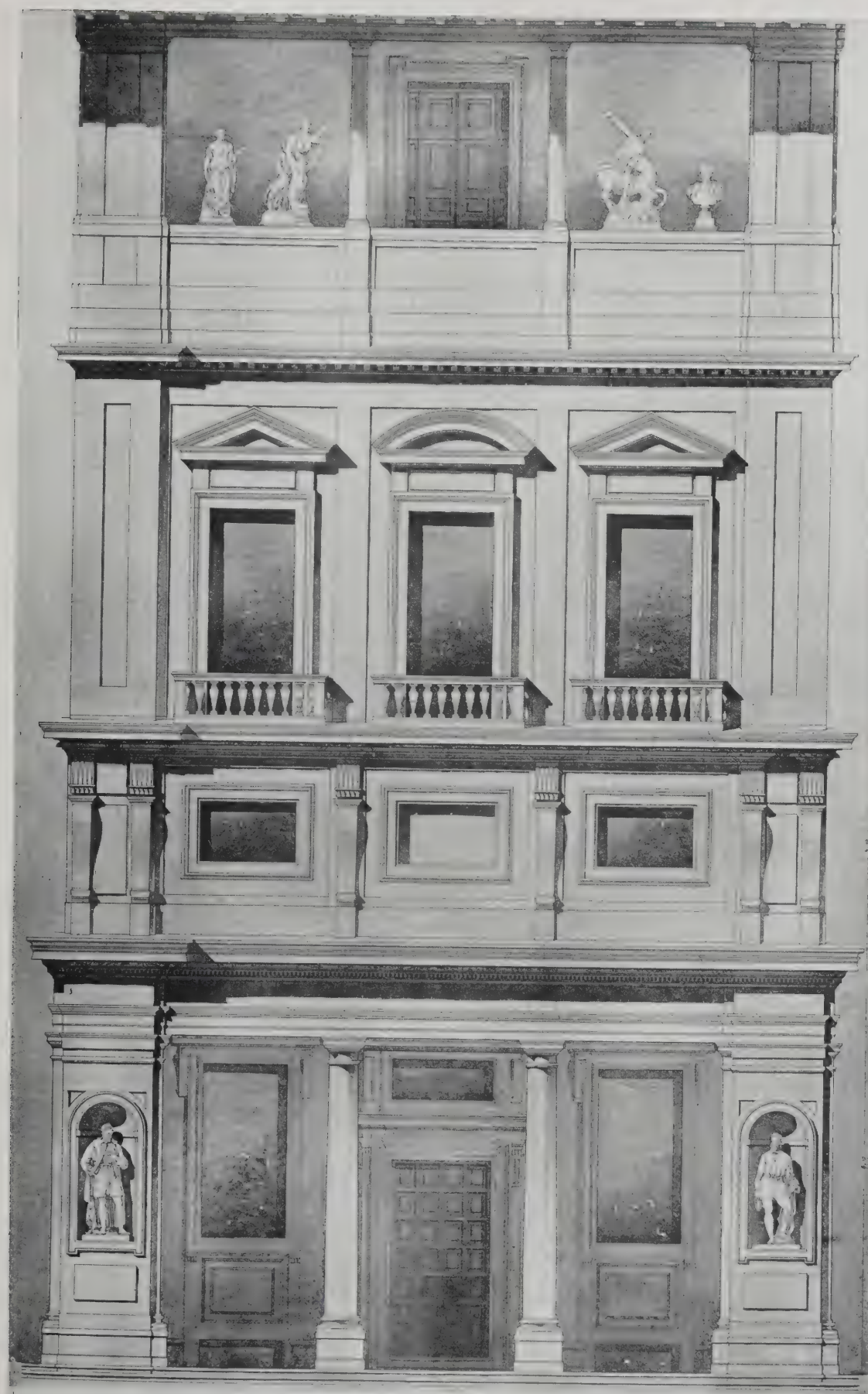






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FLORENTINE PALACES. III—THE UFFIZI: PART ELEVATION TO COURTYARD.

G. VASARI. ARCHITECT.









FRENCH EMPIRE FURNITURE. . X.—ARM-CHAIR IN THE GRAND TRIANON, VERSAILLES.



LIBRARY  
OF THE  
UNIVERSITY OF MICHIGAN





MONUMENTAL ARCHITECTURE. XXXIV.—MONUMENT IN THE CEMETERY OF PÈRE LACHAISE, PARIS.

ALBERT BARTHOLOMÉ, SCULPTOR.







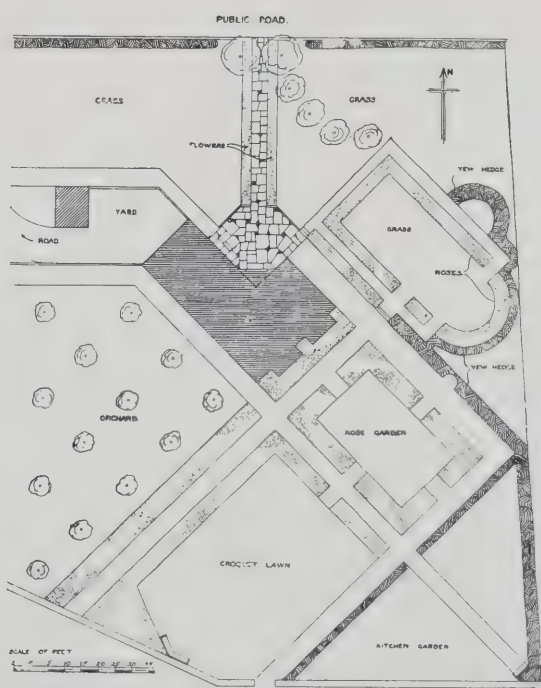
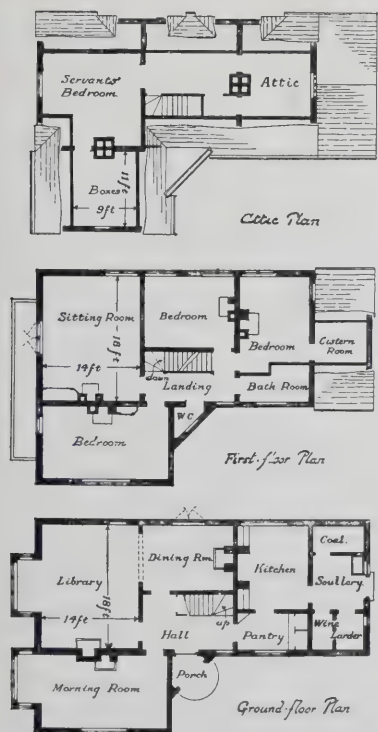


SMALL HOUSES OF THE LATE GEORGIAN PERIOD. XXXVII.—No. 6, SOUTHWOOD LANE, HIGHGATE, LONDON, N.



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MODERN DOMESTIC ARCHITECTURE. XLVIII.—HOUSE IN OXFORDSHIRE.

C. R. ASHBEE, M.A., F.R.I.B.A., ARCHITECT.

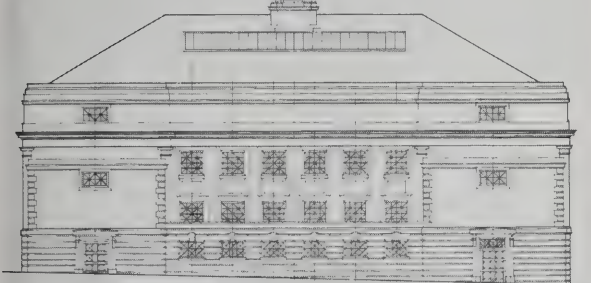








ELEVATION TO HILL ST.



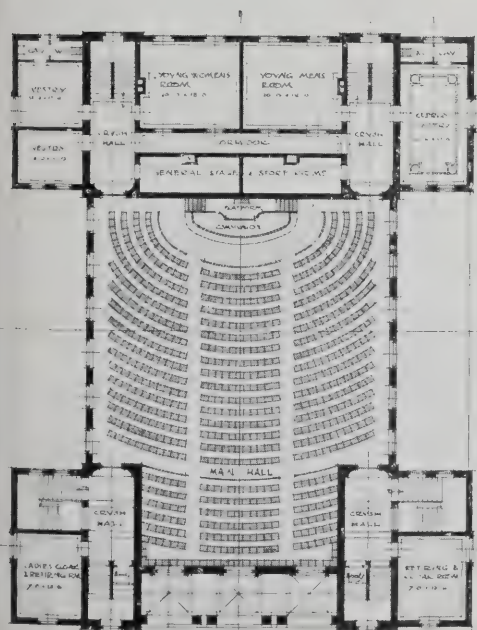
ELEVATION TO CANNING ST.



SECTION A-A



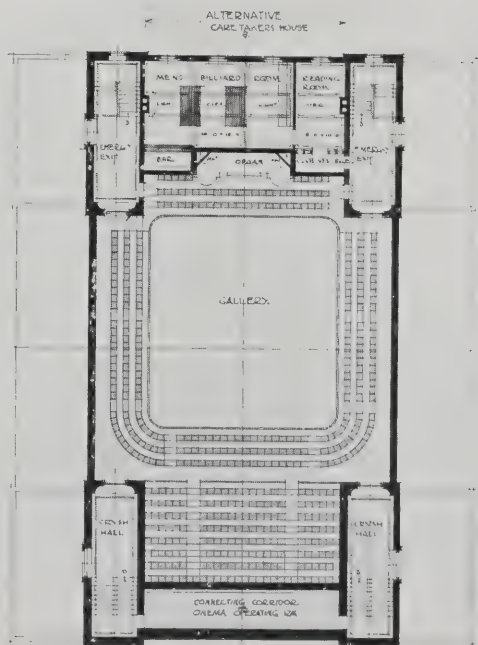
SECTION B-B



FOREWARD PLAN

| RECOMMENDATION |      |
|----------------|------|
| ARENA          | 250  |
| SEAT OF        | 100  |
| SEAT OF        | 250  |
| SEAT OF        | 100  |
| CHORUS         | 50   |
| TOTAL          | 1250 |

PROPOSED PLAN



ALTERNATIVE  
CARETAKER'S HOUSE

CURRENT ARCHITECTURE. XCVI.—WESLEYAN MISSION HALL, STOKE-ON-TRENT: DESIGN PLACED FIRST.

REGINALD T. LONGDEN, ARCHITECT.



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# THE ARCHITECTS' & BUILDERS' JOURNAL.

Wednesday, December 23, 1914.

Volume XL. No. 1042.

No. 116.



(From Piranesi.)



# THE ARCHITECTS' & BUILDERS' JOURNAL.

DECEMBER 23, 1914.

TOTHILL STREET, WESTMINSTER.

VOLUME 40. No. 104

## EDITORIAL.

GERMAN Kultur must have found congenial expression in the bombardment, last Wednesday morning, of Hartlepool, Whitby and Scarborough, and in the consequent murder—for it is no less a crime—of many inoffensive civilians, including, of course, women and children, for whose senseless and dastardly slaughter the Kaiser will no doubt shed the usual tears. Into Scarborough these sneaking pirates delivered a round hundred of shells, killing several domestic servants, a postman, two children of tender years, and several others, mostly women. In the three towns, it is stated, the killed and wounded civilians, including schoolboys and infants in arms, total nearly 400. It is thus, and in the heroic confiscation of timber cargoes, that the German Navy covers itself with glory. Of the many buildings that were hit, most were humble dwellings; but the Grand Hotel, one of the largest in the kingdom, and a conspicuous mark from the sea, was struck by three shells. Probably the chivalrous foe mistook it for a hospital.

In the ruins of Whitby Abbey they found another mark to gladden the apostles of Kultur. "There be land-rats and water-rats," and in their wanton attack on Whitby the water-rats were but emulating the heroic exploits of the destroyers of Reims and Louvain. They would be disgusted to know that Whitby Abbey is not so venerable in age as its appearance may have suggested to the ignorant spies who probably scheduled it for shelling. Although the church occupies the site of an old Saxon building, there are no traces of remains of earlier date than the twelfth century, the oldest portion being the choir, which is Early English. The west side of the nave fell in 1763, and the tower in 1830. Whitby Hall, adjoining the Abbey, was built by Sir Francis Cholmley about 1580, of materials from the old monastic buildings, and about 1635 Sir Hugh Cholmley enlarged and fortified it. Not far from the Abbey is the parish church of St. Mary, which, originally Norman, is now, through repeated alterations, an interesting hybrid. Whitby once had a considerable industry in the building of wooden ships, and constructed those in which Captain Cook made his famous voyages.

That the liability to bombardment has been recognised by dwellers on the East Coast, more especially, of course, by the owners of business premises, is evident from the statement that there has been a great deal of insurance against the contingency. This, it is further said, has been to a great extent effected at normal rates; but naturally the risk was rated higher after the outbreak of war, and rates have been advanced as a result of the bombardment. Forts on the coast seem to have returned the fire; and out of the incident there

arises the architectural question of whether or not it would be wise to fortify strongly those parts of the coast that are most exposed to attacks against which, evidently, no navy, however powerful, can ensure us. Frowning forts, with their constant reminder of war, would terribly disfigure our beautiful coast, but if, on occasions like the East Coast raid, they render an effective reply, we should suffer them. Certain it is that our notions of coast defence, consequently the appearance of our seaside towns, undergo drastic revision as a direct result of the war, which will appeal as mere theory could not be practical if somewhat unimaginative minds of the people of these islands. We may lose a little insular charm and a good deal of amenity, by being shelled out of our fools' paradise; but if there is to be a substantial increase in safety, why, "that were paradise enow."

Granted that fortifications, even when constructed of such sturdy stuff as reinforced concrete, cannot stand out very long against modern artillery, yet, provided they were equipped with the right kind of guns, they could easily beat off a paltry raid such as that of Wednesday, and the vessels they did not sink could cripple, so that, between our forts and our ships, a snatched raid would be exceedingly unprofitable to the enemy that glories in shelling defenceless villages and running away. It is probable, therefore, that after this rude awakening from apathy there will be a revulsion towards studding the coast with hideous structures of engineering origin, and the effect upon their environment—that is, on buildings of less lethal significance—is not easy to imagine. They might either have a much-needed sobering influence on the native frivolity of the seaside resort, where the giddiness of the pavilion and the bandstand infect the bunshop, the bazaar, and the picture palace. But they would be, at the worst, no more than a holiday distraction from the sterner and stronger and purer type of architecture that should reflect the influence of the war upon the national character.

There need not be, we think, the least fear that the influence will be brutalising and debasing. One point the argument from German art is hardly worth making. That German art has become coarse and brutal is the result not of war, but of the lust for it. The sale of the diabolical gospel according to the eggs of Treitschke is over it all. For forty years or more the Germans have been sedulously cultivating their own saying, in effect, "Evil, be thou my good," and this is written large in some of the most uncompromisingly brutal buildings and monuments that have ever decorated the earth to the affliction of poor humanity.



moment we do not care to enlarge on this painful one; but we are speaking by the card, and are fortified with examples that justify the indictment. We have hitherto hesitated to show any of these because of a natural repugnance to disfiguring ourselves with them, but we shall give a specimen next week.

\* \* \* \* \*

In the course of a short discussion which ensued at a lecture on the buildings which have been destroyed in France and Belgium, delivered to members of the Worcestershire Archæological Society by J. W. Willis Bund, someone expressed the fear of the immediate and most urgent concern of the Belgians being the restoration of their homes and workshops, the nation would for a long time be too exhausted to restore the architectural glories. That is the natural and therefore the most fallacious inference, the fact being that, with a resourceful and energetic people like the Belgians a great set-back is always followed by a great rebound. The Belgian cathedrals and trade halls, of which so many have been destroyed, were so many monuments to the people's pride in industry, which, at the first opportunity, will only reassert itself with redoubled energy. Necessary utility building will receive first attention when the country has been cleansed of the invaders; those who are acquainted with the indomitable energy and quenchless spirit of the people are quite confident that those virtues will ere long find due expression in the re-edification of Belgium. A people who can fight so nobly must needs build nobly, and we need not the slightest fear for the immediate future of architecture in Belgium.

\* \* \* \* \*

Whether or not a builder is a "retailer," and whether he is consequently able to avail himself of the privilege with respect to goods received, is a point which has come rather frequently before the courts. A recent instance is from Edmonton County Court, where the question was whether a builder could be considered as a retailer with regard to his dealings in paint. It was argued that the builder sold the paint in the way of business, at a retail price, and was therefore a retailer; but the judge held the contrary opinion, remarking that "if he [the judge] employed a painter to paint his house, the painter did not retail the paint to him. When a person retailed, the goods became the property of the customer." Thus baldly stated, the argument is not very convincing, and it would be dependent to attach very much importance to a judgment that obviously depended upon a very delicately balanced opinion on facts that may easily vary with the use. For example, what would have been the position if the builder had delivered the paint in tins instead of applying it with a brush, or, indeed, had used both methods of delivery? It is a very nice question but is hardly worth working out metaphysically.

\* \* \* \* \*

For all builders, it is delightful to see, are in optimistic mood. In the annual report of the Hull branch of the Building Federation of Building Trades Employers, it is recorded that while nervous apprehension of the possibility of prices had been and is still adversely affecting enterprise in building, there are many indications of a steady return to normal conditions. It is also pointed out in the report that, as we have seen on several previous occasions, the temporary increase in prices of materials is insignificant in comparison with the increase in the cost of building that had taken place from other causes during the past ten or twenty years. Although at first sight this remark may not seem to carry much consolation, since the reluctant realist might retort that a further increase of cost, whatever cause, is but an aggravation of existing conditions, yet it should serve the very excellent purpose of

allaying anxiety by showing that, in the matter of prices, the effects of the war are slight as compared with the economical exigencies of peace, or more especially, perhaps, with those that have arisen from industrial warfare. It is a useful comparison in so far as it tends to a more philosophical view of the situation, and a more stoical acceptance of inevitable conditions. Something is gained when one comes to see quite clearly that things might have been much worse. It would have been well, also, if the report had reiterated the argument that waiting for a more favourable time for building is futile, because, when at length the war is over, there must be an immediate boom in building which will almost certainly send up prices far beyond the present rates. France and Belgium, and probably other countries, will have much damage to repair, and the abnormal consumption of materials will seriously affect prices. It may, therefore, be said again, in all sincerity, that now is the time to build.

\* \* \* \* \*

A distinguished American architect, Mr. Whitney Warren, a foreign member of the Académie des Beaux-Arts, has, on his return from a tour in the devastated area in France and Belgium, addressed an open letter to the American Institute of Arts and Letters urging that America should move "to stem the tide of German organised military vandalism." Told that "it is too late to protest: the damage is done," Mr. Warren replies that there remain Ghent, Bruges, Brussels, Antwerp, Laon, Noyon, and St. Quentin, containing treasures innumerable and precious, "perhaps above all to us, who are so much in need of the inspiration of tradition." The thought that any or all of these may also suffer such ruin as he has seen in the track of the invaders moves him to fierce indignation, and he exclaims, "For the love of that which is beautiful within us, for the honour of our signature, and in answer to the call of the helpless behind the enemy's lines, is it not possible to insist that conventions and treaties to which we are a party shall be observed—or is there no blood in us?" Mr. Warren evidently recognises that force is the only argument that appeals to the Germans, and his spirited protest reveals the almost fierce intensity of feeling which their wanton crimes against art and humanity have provoked in all civilised communities.

\* \* \* \* \*

In a series of articles begun immediately after the outbreak of the war, we showed, in outline, the changed conditions of trade that must ensue, and we urged the importance of coping with them scientifically and systematically. We are gratified to find that this view is being supported with considerable energy by the Circle of Scientific, Technical, and Commercial Journalists of the Institute of Journalists, who have placed before the Board of Trade some very practical proposals for the advancement of the object in view. These suggestions may not at present be made public in detail, but they may be summed up in the general advice that the Board of Trade should abandon red tape and adopt the methods of a first-class business firm, invite suggestions for improving trade and have them competently considered, and call a conference of traders for businesslike discussion of the problems before us.

#### OUR SPECIAL ISSUE.

NEXT week's issue, dated December 30, will be a special one devoted to Buildings in the War Area. There will be sixteen single-page plates and one double-page plate, together with illustrated articles dealing with these; with the destruction wrought by the Germans; and with the brutality of German architecture as illustrated by her modern war memorials. The price of the issue will be 6d.



## THE PLATES.

### *Monument, Père Lachaise Cemetery, Paris.*

THE Cemetery of Père Lachaise, though collectively presenting a depressing spectacle, offers a wealth of fine examples of monuments to the dead which, individually, are of absorbing interest. Such is the monument erected to the Victims of June, 1832—men of the Municipal Guard and soldiers of the Line who were killed in one of those many civil turmoils that occurred in the disturbed reigns of the last Bourbons. There is a stately simplicity about this monument, the lower part fittingly plain, with the names incised as a roll of honour, while above is a bold piece of decoration, made up of swags, wreaths, and ribbons, with the French *cocque* as central feature.

### *The Pitti Palace, Florence.*

Brunelleschi was the architect of the original Pitti Palace, which was a comparatively small building. A branch of the Medici family becoming possessed of it, however, in the sixteenth century, and finding it to be of too modest a character for their needs, Bartolommeo Ammanati was employed by them to make great alterations and additions. This architect extended the main façade to three times its original length, and added at the rear the courtyard (c. 1568) which is shown by the plate in this issue. In this courtyard, rustication is carried to its extreme limit, embracing walls, columns, and arches, and in that respect the work suffers in comparison with Brunelleschi's. It is, nevertheless, an impressive conception. At the higher level is a formal semi-circular garden, with a fountain by Buontalenti in the centre.

### *Fountain in the Rue de Grenelle, Paris.*

This is the work of that great French sculptor E. Bouchardon, and was carried out in 1739. The fountain itself is negligible, the main scheme comprising a segmental composition 38 ft. in height, with a central group of figures on a pier below a pediment supported by coupled columns, niches and sunk panels embellished with figures of the Seasons and appropriate reliefs being ranged on either side. The central group comprises a seated female figure of the City of Paris, supported by figures of the Seine and the Marne.

### *Kerfield House, Knutsford.*

The interior decoration of this house by Mr. Percy Scott Worthington is of much interest, as may be seen from the plate which we publish, showing the morning-room and the drawing-room; the former panelled out in oak, the latter treated with plastered cement panels.

### *French Empire Chair.*

This is the last of the series, and a very graceful one.

### *No. 12, Smith Square, Westminster.*

In this part of Westminster many old houses have been converted and many new houses built in recent years. Among the latter are the houses in Smith Square by Messrs. Detmar Blow and Billerey, Mr. Lutyens, and Messrs. Horace Field and Simmons. The photograph reproduced shows the drawing-room at No. 12, where a Georgian decorative treatment has been adopted by the architects, with recessed china cupboards on either side of the mantelpiece and ornament in keeping.

### *Working Drawing of Bank of Victoria, London.*

The drawing shows the panelling in the banking office of the new premises for the Bank of Victoria, Australia, now being erected at No. 69, King William Street, London, E.C., from designs by Mr. Oswald P. Milne, F.R.I.B.A., of London. A spacious office of imposing character was required as an essential

feature of the ground-floor scheme, and to this end a major portion of a somewhat awkward and restricted site was utilised, and the panelling introduced. It is of Austrian oak, carried up from a floor of Spanish and Belgian black marble to finish at the cornice in alignment with the sills of the upper windows on the front elevation. On the side opposite the window panelling is carried up to finish just below the plastered openings which command a view of the banking office from the staircase and first-floor landing. The heraldic arms of Australia have been introduced in the carved cartouche over the entrance door, those of London and Melbourne in the carved panels between the sunk panelled pilasters over the side doors on the further side. A domed plaster ceiling with enriched mouldings, soffit panels, and cornices effectively crowns the whole scheme. The panelling has been made to the architect's design by the general contractors, Messrs. Patman and Fotheringham, London.

## AN EIGHTEENTH-CENTURY DOORWAY

IF there is one feature of the house exteriors of the eighteenth century which is more pleasant than another, it is the doorway. Throughout the country are innumerable examples of doorway similar in their general character and in their details, yet no two are ever exactly alike, thus showing the skill of the eighteenth-century joiner, though he followed the models in the copy-books that were provided for his delectation, yet possessed a certain traditional sense of good taste that enabled him to depart from his models in minor details without detracting from the appearance of his work. The doorway shown below, of the now almost vanished Birmingham of the eighteenth century, is worth study in this connection.



DOORWAY, OLD MEETING STREET, BIRMINGHAM.



## "SCHOLARSHIP" AND "EFFICIENCY" IN ARCHITECTURE.

R. R. CAULFEILD ORPEN, R.H.A., in his recent presidential address to the Architectural Association of Ireland, sketched very suggestively the relation of architecture to the fine arts, and of that consideration he proceeded with some definitions which are of more than passing interest. Art, he was of two kinds—that which was purely utilitarian, and that which made an æsthetic appeal: the former being of infinitely wider range than the latter, but by reason of its appeal to the intelligence only, being far more easily recognised and appraised. The essential excellence of the arts of utility was efficiency, an excellence which, when applied to the consideration of the fine arts, led to confusion.

The result of this very natural confusion in people's minds is seen in almost universal failure to place mere scholarship in its proper sphere, when an example of art is in question—the term "scholarship" in connection with fine art being here considered as equivalent to "efficiency" in its relation to the arts of utility.

Now, in order that the call of the artist may be heard, it is necessary that he should employ a medium of expression intelligible to those to whom he appeals, so that the poet's voice is audible through the written word, the musician's through the vibrations of the air, the painter's or sculptor's through visible nature embodied.

Indeed, artists could invent a medium only understood by artists, much of the confusion in regard to art really is would not exist.

It is just because the artist has only at his disposal such things as words and sounds and natural objects—phenomena of common experience—through which to express that the vast majority of people devote their appreciation or critical faculty to the appraisal of perfection in treatment displayed and valued, and remain deaf and blind to the spiritual of the artists' appeal.

Hence the confusion of ideas which substitutes scholarship for art which has already—and, alas, I will always—obscure the real essence of all fine

scholarship—that is, excellence in the manner of presentation—I hold in the highest esteem; but it must be regarded as a means of expression only. Eye, ear and hand and eye spend laborious hours—from the nursery to the University—acquiring facility of expression which the soul craves. Therefore I would not wish you to think that I minimise the importance of scholarship in art. The more scholarly the artist the wider his field of appeal; for it is clear that the obvious will always attract the average man, and he will delight in recognising defects in scholarship and plume himself on his appreciation of technical excellence.

Scholarship in art is only, as it were, a perfection of technique; it is but the artist's voice, not the spiritual content. Always the superficial will confound the real, and, in sheer despair, artists have, from time to time—individually at first and subsequently in bodies—broken out in rebellion. Scholarship they see as a hindrance and their own voices ignored; so they say goodbye to scholarship; we will no longer give precedence to the obvious for its delight: we must shock the vulgar complacency of its cultured mind; we will write a "symphony" or a "nocturne." James McNeill Whistler did this, and, of course, the great British public were scandalised, and stormed, and called him a traitor! But Whistler remained an artist, nevertheless.

Similarly, it was the artist soul in rebellion which the post-impressionist says: 'Every fool knows that the human hand has four fingers and a thumb.

I'll make the total six! Correctness of detail has no connection with my art, but its deliberate neglect will, I sincerely hope, frighten the critic from his contemplation of the externally obvious, and clear the way for some sympathetic soul with which I may hold fellowship for a little space.'

Mr. Orpen, proceeding to apply these considerations to the art of architecture, said: "The art we follow occupies, as it were, an intermediate position between these two—the utilitarian and the æsthetic. It is an eminently practical art, dealing with human requirements as well as making a claim on our æsthetic sense. And if we are to fix its true place among the arts we must properly appreciate this dual nature—a nature, indeed, shared by all the crafts which admit of decorative treatment.

"The accumulated knowledge which the exercise of our profession demands; the multitudinous requirements of clients of all sorts and conditions; the necessity of combining the capacity of a man of business with the tact of a diplomat and the temperament of an artist, render the pursuit of our art one of ever-increasing difficulty.

"It is clear that in a profession so complex as ours efficiency will occupy a prominent place; indeed, I am inclined to think that as the complexity of our calling increases there is much danger of this efficiency entirely overshadowing the true artistic element. Modern architectural training tends to increase this danger in the stress it lays on efficiency in the representation of design on the drawing-board. Undoubtedly skill in draughtsmanship is of supreme importance to the artist developing his design, but an architect must always remember that the final expression of his art is in the abiding building which his skill creates, and that the draughtsmanship lavished on the preparation of the design is but a memorandum, as it were, of his conception.

"We cannot ourselves translate our idea into brick or stone, but must entrust it to another, who will call to his aid a score or so of honest but quite unsympathetic craftsmen. Is it, then, a matter for surprise that, when we have fulfilled all these conditions and when our conception has, at last, been materially realised, the essential art, or the impress of our own individuality, that quality in which the real art exists, should be difficult to discover?

"Danger lurks in the call for efficiency. The 'Registrationists' are clamouring for it as the test to which all who are to be permitted to practise our art must submit; our architectural schools are trumpeting the success of their students, turning out scores of them steeped in scholarship, prodigies of skill in the delineation of design, young men who will sweep all the great architectural competitions before them, just because they can produce that which the public—and even the great majority of architectural assessors—can appreciate, namely, the outward presentment, the evidence of scholarship. Even so have our Universities in the past devoted all their energies, all their accumulated wealth, to producing scholars highly efficient, carrying on the traditions of the public schools where first the suppression of individualism began. I know it will be said that the world is better served by efficient men than by permitting the individual to develop along his own particular line. Of course, this is to a large extent true. It may be, however, that the terrible European crisis through which we are now passing may go far to reveal its falsity. Efficiency has been the object of all German education for many years, but has it produced great artists? I do not think it has. German art just lacks that humanity without which, no matter how scholarly the worker may be, only a lifeless thing will be wrought."



## THE BALL AND CROSS OF ST. PAUL'S CATHEDRAL.

[SPECIALLY CONTRIBUTED BY J. M. W. HALLEY, F.R.I.B.A.]

IT is curious to think that since the sixth century Londoners have never, for any length of time, been without a church dedicated to the great Apostle of the Gentiles, St. Paul. Nothing gives a more forcible idea of the continuity of time than the history of such a building—it is, indeed, the very history of London and the development of a great nation. For fourteen continuous centuries an idea has been embodied in stone and, to give point to it, it had for its crown a symbol of that idea—namely, the Cross.

About 1315 "a new Cross, with a pommel, large enough to contain ten bushels of corn, well gilt, was set on the top thereof (of the spire), by Gilbert de Segrave, then Bishop of London, with great and solemn procession, and relics of saints were placed within it." This Ball and Cross must have been a commanding landmark to the country round about London; it must even have been seen from the sea. Wren gives its dimensions; he says that "the Ball was in circumference 9 ft. 1 in.; the height of the Cross from the Ball 15 ft. 6 in. The Eagle from the bill to the tail 4 ft.; the breadth over the wings 3 ft. and a half."

Perhaps the most curious use to which the Cross has been put was to make it a pinnacle for an acrobat to posture upon. It is related that "Queen Mary, the day before her coronation, saw a Dutchman standing upon the weathercock of the steeple, waving a five-yard streamer." Wren never saw the spire of Old St. Paul's, and could not see the Cross, as they were destroyed before his time; consequently his dimensions are problematical. Such as they are they had probably some bearing on the design of his Ball and Cross.

In Longman's "Three Cathedrals Dedicated to St. Paul" the statement is made, in reference to the Cross and Ball upon the lantern of New St. Paul's, that "of the time when this was done, the way in which it was accomplished, and of its cost, singularly enough, no record seems to remain." Although it is impossible to fix the date of its erection to within a few months, it must have been put up immediately the lantern was finished—that is to say, before the end of the year 1708.

The lantern was built by Edward Strong, junior, in 1708, the top stone being laid in October, probably with the ceremony described in "Parentalia" as taking place two years later.

In November the leadwork forming the cap of the lantern was finished by Joseph Roberts, whose account for the work reads as follows:—

|                                                                                                 |     |    |   |
|-------------------------------------------------------------------------------------------------|-----|----|---|
| To Joseph Roberts, Plumber for                                                                  |     |    |   |
| 229 <sup>c</sup> . 2 <sup>q</sup> . 6 <sup>lb</sup> of Lead for ye Lantern at 15 <sup>s</sup> . | 172 | 3  | 2 |
| For Sodder for ye same 6 <sup>c</sup> . 3 <sup>q</sup> . 10 <sup>lb</sup> at 9 <sup>d</sup> .   | 28  | 14 | 6 |
| For Coals, Candles, and Charcoal ..                                                             | 1   | 5  | 7 |
| For 60 pces of Lead of 2 in. sq <sup>re</sup> for the                                           |     |    |   |
| Screws of the Ball at 2 <sup>c</sup> . 0 <sup>q</sup> . 12 <sup>lb</sup> at 2 <sup>d</sup> .    | 1   | 19 | 4 |
| For 5 yds. of 24 <sup>lb</sup> pipe at 5 <sup>s</sup> .                                         | 1   | 5  | 0 |
| For 8 men 10 days each setting out Tack                                                         |     |    |   |
| holes at ye bottom of the Cap of ye                                                             |     |    |   |
| Lantern for ye Masons and Carpenters to                                                         |     |    |   |
| cut, cutting out and fixing the same,                                                           | 12  | 0  | 0 |
| Dressing the Molds and angles of the Cap                                                        |     |    |   |
| and Oval Windows and fixing ye pipes into                                                       |     |    |   |
| ye Angles of ye Windows at 3 <sup>s</sup> . p. day ..                                           |     |    |   |

217 7 7

This account is interesting for the light it throws on the manner of working, but it also mentions the Ball, which was probably being put up at the same time. There is, however, an earlier reference to it which is worth quoting. It is dated July, 1708, and reads as follows:—

|                                            |   |   |   |
|--------------------------------------------|---|---|---|
| To Francis Bird, Carver.                   |   |   |   |
| For Moduling the Scrowls, Ball, and Cross, |   |   |   |
| etc., for the Lantern to ye Dome ..        | 2 | 3 | 0 |

For Carving one of the Scrowls for the Copper Smith to make his molds by 4<sup>ft</sup>. 6 high, 20" deep, and 18" in the face ..

The same month in which the plumbers were ing, namely, November, there is a long account, I think, proves conclusively when the Ball and the crown to St. Paul's, was erected. It reads:—

To Thomas Robinson Smith for 14 hoops, C Ball and Staples w<sup>th</sup> sev<sup>ll</sup> sorts of Ironworke and square frames and abundance of Screws, w<sup>th</sup> Cross. 24<sup>c</sup>. 1<sup>q</sup>. w<sup>th</sup> screwing and many alteration 12<sup>d</sup>. p<sup>th</sup> .. .. 135<sup>s</sup> 16

This can refer to nothing but the actual building the Cross and Ball, as the note in the margin is contemporary with the account. In June of the following year details of the painting and gilding appear. item is written:—

To William Thompson, Painter.

For laying 24<sup>m</sup> 500 of Double Leaf Gold to the 3 Wreaths at ye S. West Tower and Copper Worke to both and ye Lantern and 16 tops of Ornam<sup>t</sup> there and 8 Acrons sc. at 4<sup>s</sup> p M. .. .. 98

For 134<sup>1</sup>/<sub>2</sub> yds. of painting to ye Copper Worke of the 2 W. Towers and upon ye Lantern 4 times in Oyle before the Gold size at 12<sup>d</sup>. .. .. 6

For 3 pair of Blankets to cover the Copperworke and fencing for Gilding .. .. 2

It is difficult to identify some of these details.



ST. PAUL'S CATHEDRAL: THE SUMMIT.



for example, "16 tops of ornament" and "8 Acorns." The former may refer to the acanthus leaves which project from the extremities of the Cross, but I confess being at a loss to find a place for the acorns.

It would seem, therefore, that the Ball and Cross was erected before the winter of 1708-9, and was painted and gilded by the summer of 1709.

I do not know why it should have deteriorated so quickly that it had to be taken down and replaced by a new one in 1821, under the superintendence of Mr. Kerell. The new Ball and Cross was made by F. Ham and Froude, and erected by R. and E. Keppeler under conditions vastly different from those which obtained in the early years of the eighteenth century. It can have been no simple job to raise this huge mass of copper to its final resting-place, some 400 ft. above the ground. Although the Cross and Ball are much smaller than the mediæval ones, the total height of the lead cupola of the lantern on which they stand is 2 ft. The Cross itself is 12 ft. 4 in. high and 10 ft. 1 in. across the arms, whilst the Ball is 7 ft. 3 in. in diameter, and the brackets with their plinth and capital are over 12 ft. high.

The old Ball and Cross must have been smaller, because the brackets now measure 7 ft. instead of 4 ft. 6 in. of Francis Bird. The Cross was taken down without much difficulty, but it proved much harder to get the Ball loose from its fastenings. When at length it was lowered to the ground it was rolled down Ludgate Hill in the presence of an immense concourse of people, and then taken to the works of F. Ham and Froude.

It was at this time that a young artist called Horner, inspired by the ambition which Mr. Haynes (a contemporary poet) writes of in his tragedy of "Durazzo"—

"Had he but wings to fly,

He'd bear his very appetites to heaven,  
And slake his thirst in the clouds."

He obtained permission to erect an observatory "above the usual site of the Cross, for the purpose of making panoramic drawings of the metropolis and the surrounding country."

He built his platform several feet above the highest of the Cross, on which he placed his "crow's nest," from which he made a complete panoramic view of the metropolis and its surroundings on 280 sheets of paper, the area of which amounted to 1,680 ft. super. It must have proved an immense mental labour and a physical as well, in ascending every morning to his airy position of vantage." Horner's own impressions are without interest, and are here given at some length. He writes: "On entering the cathedral at three in the afternoon, the stillness which then prevailed in the streets of this populous city, contrasted with the midday bustle, was only surpassed by the more solemn or churchly stillness of the cathedral itself. But not less impressive was the development, at that early hour, of the immense scene from the lofty summit, whence I frequently beheld 'the Forest of London,' without any indication of animated existence.

It was interesting to mark the gradual symptoms of morning life, until the rising sun vivified the whole with activity, bustle, and business. On one occasion daylight was passed in the observatory, for the purpose of getting the first glimpse of day; but the cold was so intense as to preclude any wish to repeat the experience.

The weather was frequently so boisterous during the stormy summer of 1821 as to frustrate the most ingenious contrivances for security. Indeed, scarcely a day passed without derangement of some part of the scaffolding or machinery connected with it."

Indeed, during a heavy squall some of the scaffolding was carried away and the observatory was nearly rolled from its fastenings. However, no life was lost, although the situation was full of peril.

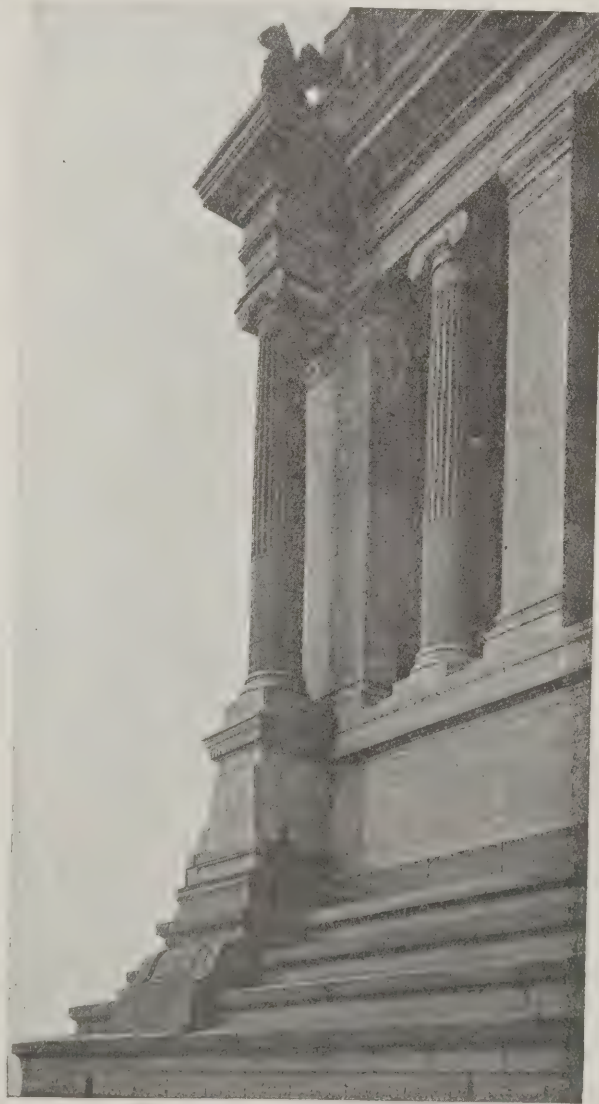
It is related of Gwynn, the author of some fine descriptions of the cathedral, that when measuring for

the purpose of his drawings, his foot slipped and he slid over the convex side of the dome until he was stopped by a projecting piece of lead, from which position he was rescued by one of his assistants!

The recent regilding of the Ball and Cross, as well as the pine-apple finials of the two western towers, was undertaken by Messrs. J. W. Gray and Son. Bearing in mind the experience of 1821, they erected a special scaffold, which could not be blown down, except in company with the Ball and Cross—a most unlikely contingency. The copperwork, when it was cleaned, was found to be in perfect condition, and it is this fact that makes one wonder at the destruction of Wren's in 1820. Before gilding it was given two coats of oil paint, then a coat of gold size. The gilding was done with double English gold, and now that it is unveiled one can again see the Cross, which for fourteen centuries has stood over London like a benediction.

## THE TOWER OF THE PALAIS DE JUSTICE, BRUSSELS.

FROM illustrations given in past issues of this Journal, readers will have reached the immensity of that amazing work, the Palais de Justice, Brussels—now occupied by the military officials of the German Army: but the great scale of the building could not be made more evident than by the illustration below, where the gigantic order is shown in comparison with a man's height.



PALAIS DE JUSTICE, BRUSSELS: DETAIL OF TOWER.

J. POELAERT, ARCHITECT.



## THE ARCHITECTURAL ETCHINGS OF CHARLES MÉRYON.

**A**MONG the etchings of Charles Méryon (1821-1868), that greatest of French etchers, are many of architectural subjects, two of which are here shown. Like some of the work of that other great etcher, Piranesi, Méryon's conceptions display not only the mind of a genius, but also the mind of one who was overshadowed by mental disease. Méryon died, in fact, within the madhouse at Charenton, where he had been confined from time to time. He suffered from periodical attacks of melancholy madness, complicated

terrific combination than some of the Arabian Nights, and his most lurid chapters illustrated by Méryon.

No artist could make stone walls take on a more terrible physiognomy than Méryon, while despair and madness lurk in every line of his houses and streets. In "The Morgue" the line has an austerity almost mechanical in its precision, which forces into undesired prominence the little building where the dead are provided—gratis—bed and table for her unfortunate children. Robert Louis Stevenson said of



THE MINISTRY OF MARINE, PARIS. BY CHARLES MÉRYON.

with delusions, and the vagaries of a brain obsessed with gloom are evident in the bulk of his work, which possesses, nevertheless, rich and wonderful qualities.

It was after a year's confinement at Charenton that he produced the print of "The Ministry of Marine" (1865), which has depicted on it an airy host of chariots, grotesque fish, and flying machines, while his etching of the College of Henri IV., in an early state, has a fantastic marine background; this was afterwards erased and finished with buildings. "The Morgue" conveys an impression of awfulness such as is inspired by a chapter from the work of another gloomy genius—Poe; certainly one could scarcely imagine a more

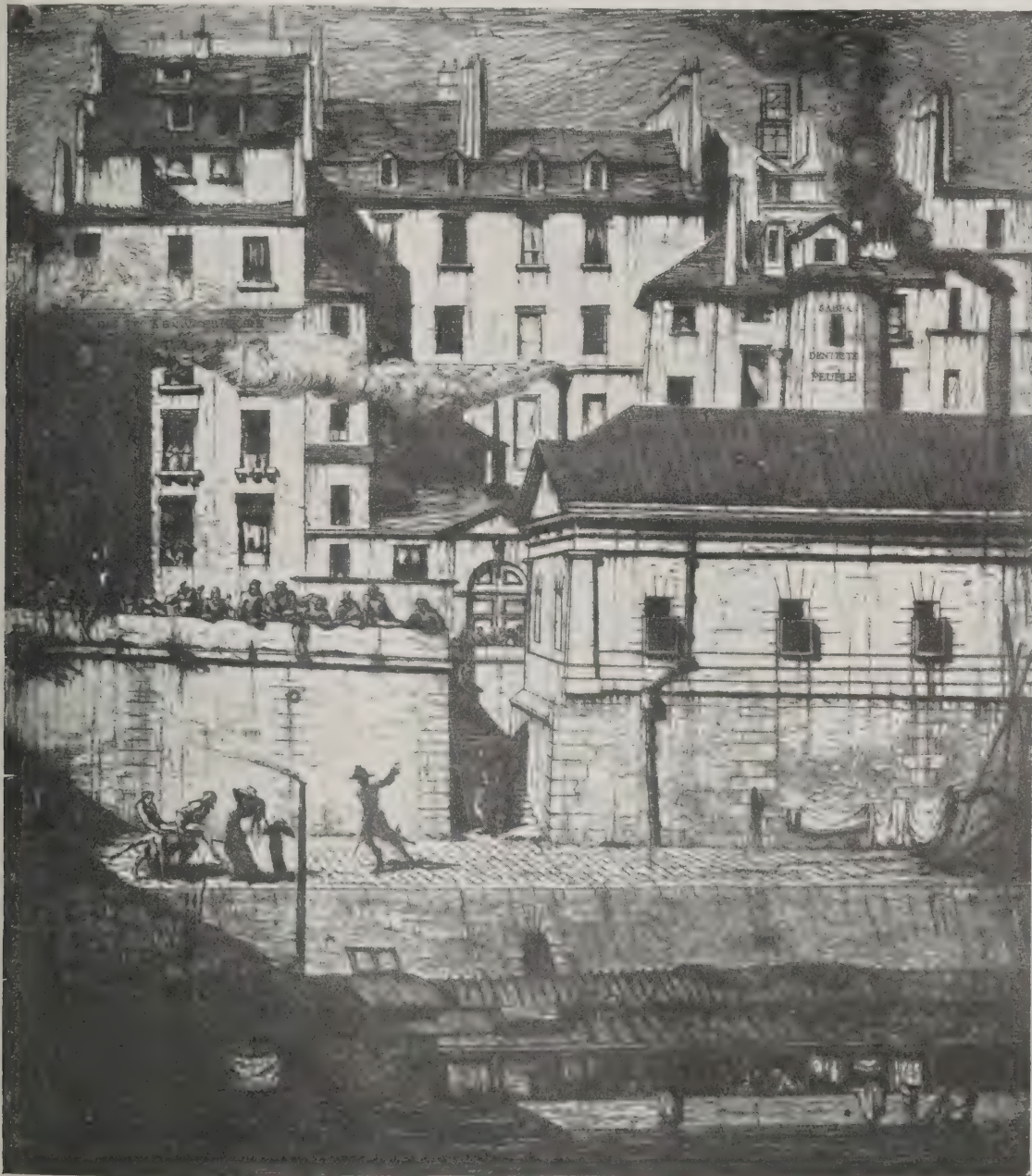
"Certain old houses demand to be haunted, and certainly no one was fitter to portray this aspect of Paris than Charles Méryon. His etchings were made in a time when the city was rapidly disappearing, and though he saw it all with eyes behind a veil of indefinable sorrow was hidden, yet his portraiture is accurate. No artist was, indeed, ever gifted with a more accurate needle to delineate architectural details. His line was a marvel of strength and decision, emphasised by the severity adopted in the treatment of his subject, yet never lost sight of in his more delicate compositions.

Méryon was the son of an English surgeon



rich dancer, and at an early age he obtained a commission in the Navy. This, however, he soon resigned (in 1846). His mother left him a small legacy of 3,000 francs, and with this he set up as a professional artist. He entered the studio of a painter in the city of pupil, where he was discovered to be suffering from an affection of the eyes called anisometropia, which made it impossible for him to become a painter. He had keen sight, but could not distinguish colors. So he entered the atelier of M. E. Bléry, the engraver, with whom he spent six months copying the engravings after De Louthembourg, Salvator Rosa,

and are the greatest etchings made since Rembrandt laid down his needle. Méryon's whole output amounted to about 100 plates, many of which are chiefly interesting as being by his hand, but the Paris set makes his sufficient monument. "L'Abside de Notre Dame" is perhaps his greatest etching by right of its peculiarly majestic composition, and of its solemn and austere beauty. Sir Seymour Haden, himself an etcher of brilliant accomplishment, writing of Charles Méryon's "L'Abside" and "La Morgue" says: "From both of these it may be inferred that his work was not impulsive and spontaneous like



THE MORGUE, PARIS. BY CHARLES MÉRYON.

Karel du Jardin. With this slight preparation he set up in his own studio and made his immortal etchings of Paris. His work is said to have been chiefly inspired by a Dutchman called Reynier Zeeman, one of whose etchings of Paris (made about 1650) was picked up for a few sous. These etchings of Amsterdam—which are among the most delightful of architectural drawings—were copied by Méryon, and it was probably the desire of emulating them that led him to produce the "Eaux-fortes sur Paris," which were published between 1852 and 1854. They are dedicated to Reynier dit Zeeman, Peintre et eau-fortier," and

etched work in general, but reflective and constructive, slow and laborious. . . . His method was this—he made, not a sketch, but a number of sketches, two or three inches square, of parts of his picture, which he then put together and arranged into a harmonious whole, which whole he first bit in (with the acid) and then worked into completeness with the dry point. What is singular, and a proof of his concentrativeness is that the result has none of the artificial character usual to this kind of treatment, but that it is always broad and simple, and that the poetic motive is never lost sight of."



## AN ESTIMATE OF THE WORK OF THE LATE JOHN BELCHER, R.A.

BY J. J. JOASS, F.R.I.B.A.

AT last week's meeting of the Royal Institute of British Architects, a paper on the work of the late Mr. John Belcher, R.A., was read by Mr. J. J. Joass, F.R.I.B.A., who was partner with him.

Mr. Joass said that in forming an estimate of Mr. Belcher's work and of the very considerable influence which he had had on contemporary architecture, there was one aspect which should not be lost sight of. His father practised in the City of London at a period when the traditions of Soane, Donaldson, and their school had by no means died out. He was almost entirely unaffected by the Gothic Revival and the teachings of its prophets, not from any inability to appreciate and understand the beauty of Gothic, but from a logical conviction that such work was unsuitable to the requirements of his time, particularly in the class of work he was likely to be engaged upon in London City. He sent his son to Paris to study especially the Renaissance work, and no doubt what he learned at that time affected in a very marked manner the work of his later years. A continuity of thought and tradition was thus preserved from father to son which connected him to an unusual extent with the traditions of the later phases of English Renaissance architecture, and specially qualified him to take part in the early manifestations of its revival. The first buildings which bore the mark of the influence of John Belcher, jun., were the Royal Insurance Company's building in Lombard Street and the Commercial Union Assurance Company in Cornhill. Some of the sculpture of the former building was executed by Thomas Thornycroft, the father of the present Royal Academician, and illustrated at that early period the importance which Mr. Belcher attached to the allied arts in connection with architecture, a principle to which he was faithful to the last, and which was to have a great effect on his future work.

Notwithstanding the paternal warnings and instruction, Mr. Belcher soon came under the influence of the Gothic movement, and became one of its most enthusiastic devotees. He was a contemporary of Sedding, and the work of Godwin, Burges, and Street affected him powerfully. The effects of this change were first noticeable in his work at Mansion House Buildings at the Corner of Queen Victoria Street and Poultry, now occupied by Mappin and Webb, and a small hall for the Curriers' Company, afterwards pulled down and rebuilt by Rylands.

Mr. Joass showed some typical examples of Mr. Belcher's domestic work, and pointed out that a notable feature of nearly every one of the designs was the garden. This was a subject which specially appealed to Mr. Belcher at a time when the idea of a garden designed by an architect seemed most unusual.

Although keenly interested in ecclesiastical architecture, Mr. Belcher had few opportunities in this direction, and the most important designs were never carried out. In 1885 Mr. Beresford Pite became a partner with Mr. Belcher, and much of the work subsequently produced exhibits his influence very strongly. Their conversion from Gothic appears to have taken place about the same time, and the Renaissance soon captivated them. Signs of this change are not wanting in Mr. Belcher's

domestic work, and several visits to the Continent seem to have confirmed him in his devotion to the style.

*The Chartered Accountants' Building.*

Mr. Belcher's first important public building, the new Hall for the Institute of Chartered Accountants, was won in competition. It was the lighter and more fanciful phase of Renaissance architecture which appealed most to him at this time, and his mind was strongly stimulated by visits to Southern Germany and Vienna. The eccentricities of the late Italian work at Genoa also had their effect upon him and were reflected in the Accountants' Hall. At the date of its completion in 1891 this building possessed many novel and almost startling features, though they were no longer thought so, and since then many of them had become so familiar by much repetition as to seem almost hackneyed. This building even now was one of the most interesting and stimulating examples of the modern Renaissance style in England.

It was pleasing to have to record that the interior decoration of the Council Chamber of this building was now in progress. It was based upon the lines originally suggested—a repetition of the architecture of the room in the great panels on either side, with subjects of a symbolical character carried round the semi-domes at either end. The work was being carried out by Mr. George Murray, and he (Mr. Joass) was glad to be able to state that it had Mr. Belcher's entire sympathy and approval. Another work of Mr. Belcher's to be reckoned with was his competition design for the South Kensington Museum. This gave a fine opportunity for the display of that imaginative and fanciful phase of the Renaissance which the author adopted at that period, and was not surpassed in these qualities by any architect of our time.

*The "Later Renaissance" Book.*

Referring to the production of "The Later Renaissance Architecture in England," in which Mr. Belcher collaborated with Mr. Macartney and the late Mr. Bradley Batsford, Mr. Joass said he had been told by one of the best-known and most successful architects in America that it was the most useful architectural work ever published, and it must certainly have saved many an architect an infinity of trouble in the design of English woodwork. The making of this book had the effect of turning Mr. Belcher's thoughts from Vienna and Genoa to England, and had a great influence upon his subsequent work. Representative works about this time were the Colchester Town Hall, the Tower, Pangbourne, Electra House, Cambridge Town Hall, Cornbury Park, Oxfordshire, and the Ashton Memorial. Other work of this period included the Royal London Friendly Society, the reconstruction of No. 45, Belgrave Square, a library in 49, Prince's Gate, Mappin and Webb's new premises, Oxford Street, additions to Winchester House, Old Broad Street, and the Royal Insurance Building in Piccadilly.

In later years illness seriously interfered with his activities, but among characteristic works were Holy Trinity Church, Kingsway, the new offices for the Zoological Society in Regent's Park, and Whiteley's new store.

*Professor Beresford Pite's Tribute.*

Professor Beresford Pite, in proposing a vote of thanks to Mr. Joass, commented him on his breadth of view, judicious criticism. Mr. Belcher's work, he said, was as interesting and many ways as delightful as Belcher himself. His work extended that power of appropriation assimilation which is so essentially characteristic of modern design. It was to find the source from which Mr. Belcher obtained his wide sympathy and liberality, for he was between the narrow fold of the Classical school in his father's day and the Gothic revival outside. Standing among the men of fixed Classical tradition beset by the men of Gothic fire, he moved in both spheres. Many of his small domestic works were delightful, showed what homelike feeling a competent architect could impart into an antiquated and unhomelike style, and he (the speaker) ventured the opinion that in this direction Mr. Belcher's genius found its best exercise. His houses seemed settled down on their grounds so naturally that the garden soon became an object of interest. He (the speaker) thought that a large element of originality entered into Mr. Belcher's design schemes. His later work was marked by an originality that seemed to be derived from his early Gothic enthusiasm and a natural love of quaintness, which led into experiments in design which were completely justified themselves. In his later designs he was always adventurous, never repeated himself. Such an artistic career was characteristic of Mr. Belcher. What would have been the effect on Mr. Belcher if he had been put through the mill at the Board of Architectural Education? He fancied if that had happened, Mr. Joass would have had a different tale to tell them. He (the speaker) would be inclined to dread the effect of five years' architectural education on a man who was in doubt whether he should not instead take up music or sketching and water-colour drawing. It seemed as if after all there was something to be said for the old haphazard way of education. In conclusion Mr. Joass referred to the great importance which Mr. Belcher always attached to the use of sculpture.

Sir William Plender, Past President of the Institute of Chartered Accountants, spoke of the pleasure afforded by thousands of people daily by Mr. Belcher's fine building for the Accountants' Institute. It would make the architect far more through generations to come. Mr. Belcher's work brought to his mind an aphorism expressed by a famous Frenchman, "Great thoughts come from a heart."

Sir Aston Webb said that the successful use of sculpture in much of Mr. Belcher's work led him to hope that sculptors would acquire a greater knowledge of architecture so as to work more with the architect. He also thought they should adopt the French custom of putting the names of both sculptor and architect on buildings.

Sir W. Goscombe John, R.A., said that Mr. Belcher's architecture was curiously sculptural and adapted to show that the arts could be modelled together.

Sir Edmund Gosse and Sir Edgar George also spoke briefly.



## COMPETITIONS.

*Garden City Lay-out, Doncaster.*

The Corporation of Doncaster invite plans for a general development plan about 20 acres of the Carr House estate and for erecting 102 houses for the following classes on 4 acres thereof. Plans of designs placed first, second, and third will receive premiums of £50, £20 and £10 respectively. The commission payable for the buildings will be at the rate of 5 per cent. on the cost of one block of each type which may be erected on the site, and a reduced percentage or fee on the other blocks erected from the same designs. This percentage or fee will be subject to a subsequent arrangement. Mr. Patrick Abercrombie will act as assessor of the competition.

## GENERAL REQUIREMENTS.

Competitors are at liberty to vary the type of the roads, providing the necessary section be made and the junctions with existing roads are secured. The new roads are to be designed entirely at the discretion of competitors. The sand pit to the west of the site will be filled in by the Corporation.

It is desirable that competitors should personally inspect the site, and in design the blocks their position on the site should be borne in mind, and the development of the remaining 16 acres should be outlined. It is suggested that, so far as relates to the 4 acres, they should provide for an average of twenty-five houses per acre, exclusive of any space for playground or allotment. They may be arranged in blocks or groups of several houses, but no single house should consist of more than four

rooms. Freedom is given as to selection of materials and type of elevation compatible with the requirements of the Town Council's bye-laws. The following are the types of houses required:—

(a) Type A.—Group of three houses, containing six rooms, i.e., parlour, dining room, scullery, and three bedrooms, at not more than £220 each. Sixty of Type B.—Group of four houses, containing five rooms, i.e., living room, kitchen, and three bedrooms, to cost not more than £180 each. Thirty-two of Type C.—Group of four houses, each containing living room, kitchen, and two bedrooms, to cost not more than £160 each. The above prices are exclusive of the cost of the sites and road construction.

Each house to be provided with pantry, store, cycle house, butts, and water supply. It may be assumed that a satisfactory foundation will be found about 2 ft. below surface of ground. The site is fairly level. The cost of the different types of houses stipulated above is intended to include boundary walls, fencing, and planting. It has been decided to fix a price per cubic feet of contents at 4½ pence per cubic foot from the top of the footings.

## DRAWINGS REQUIRED.

(i) A block plan to a scale of 100 ft. to 1 in. The houses are to be shown on this plan but no drains or sewers need be shown.

(ii) Complete plans, sections, and elevations of a block of houses of each type to a scale of 8 ft. to 1 in. The drawings of each type to be on a separate sheet. No alternative may be submitted.

Particulars may be obtained from the Town Clerk, Mansion House, Doncaster, to whom all questions should be sent not later than January 9, 1915. The competition closes on January 23, 1915.

*New Board of Trade Offices, Whitehall.*

An unhappy fate seems to spoil our endeavours to give the correct title to one of the firms among the selected architects who have submitted designs in the final competition for this building. Instead of "Messrs. Percy Jones, Ernest Prestwich and Ivor Jones," the name of the firm should have been given as "Percy Thomas, Ernest Prestwich, and Ivor Jones," of Cardiff and Leigh.

*St. Pancras Town Hall.*

In the competition for alterations to the St. Pancras Town Hall the assessor has made the following award: 1st (50 guineas), Mr. A. J. Thomas, Hampstead; 2nd (30 guineas), Messrs. Wonnacott and Cook, Old Cavendish Street; 3rd (20 guineas), Mr. G. E. Elkington, Hendon.

*New School, Stoke-on-Trent.*

At a meeting of the Coventry Education Committee held on December 16, the Committee decided to adopt a recommendation from the Finance and General Purposes Sub-Committee that the building of a new school at Stoke should be proceeded with, and that plans and draft instructions to architects be approved and recommended to the City Council for adoption. Architects practising in Coventry are invited to submit sketch-plans for the school, accommodation to be provided for about 450 children in an infants' department, and for about 375 senior children in each of the two senior departments, for boys and girls. The whole school will thus accommodate about 1,000 children. The committee will not consider any design the total estimated cost of which exceeds £15,000. The architect whose design is accepted will be appointed to superintend the erection of the building at an inclusive fee of £600. Designs have to be delivered not later than noon on February 27 next.

## R.I.B.A. PROBLEMS IN DESIGN.

The following are the particulars of the designs required in Subjects XIX, XX, and XXI., Testimonies for the Final Examination of the Royal Institute of British Architects:—

*Subject XIX.*

(a) A Memorial to Lord Roberts overlooking the training ground of a garrison city; on a low hill rising with a general inclination of one in five. The memorial is to stand on the summit of the hill upon a level plateau about 80 ft. in diameter. The height of the memorial is not to exceed 120 ft.

Drawings.—General plan to 1-16 in. scale. Detail plan (so far as may be necessary), elevations and sections; scale optional.

(b) A Garage for a Large Country Mansion. Provide for four owner's and four visitors' cars, and washing place; residence for chief chauffeur and sleeping accommodation for four visitors' chauffeurs. Provide also accommodation for artesian well, pump and water tower, to supply the mansion; electric lighting and power plant, engineer's workshop; heating, fuel store, and incidental requirements to be provided. The site is not limited; the courtyard type of plan is suggested.

Drawings.—Plans, elevations and sections to ½ in. scale, and ¼ in. detail of a portion.

*Subject XX.*

(a) A Façade for an important firm of Fine Art Publishers, in the principal street of a Capital City. Width of site, 36 ft. (between buildings). Height not to exceed

four floors above pavement line; there is to be a shop front on the ground floor, and a separate entrance to a fine art gallery on the first floor. The facing material to be generally of stone, but brick is not to be used.

Drawings.—Plans at ground and first-floor levels, showing arrangement of façade elevation and section. All to ½ in. scale.

(b) A Detached Swimming Bath for a Boys' Public School. Bath not to exceed 70 ft. in length.

Drawings.—Plan, elevations, and longitudinal sections to ½ in. scale, and a cross section through bath to ¼ in. scale.

*Subject XXI.*

(a) A Band Stand in a Public Park to accommodate twenty performers. To be arranged as a large alcove in connection with a colonnade.

Drawings.—Plan, elevation and section to ½ in. scale. Details to ¼ in. scale.

(b) A Hostel for Male Students on a Detached Suburban Site to accommodate thirty, and to include a suite of rooms for married warden.

Drawings.—Plans, elevations and sections to ½ in. scale.

*Dates for Submission of Designs in 1915.*

|                    | Sub. XIX. | Sub. XX. | Sub. XXI. |
|--------------------|-----------|----------|-----------|
| United Kingdom ... | Feb. 27   | April 30 | June 30   |
| Johannesburg ...   | April 30  | June 30  | Aug. 31   |
| Melbourne ...      | May 30    | July 31  | Sept. 30  |
| Sydney ...         | May 30    | July 31  | Sept. 30  |
| Toronto ...        | March 31  | May 30   | July 31   |

*Designs Approved.*

The Board of Architectural Education announce that the designs submitted by the following students who are qualifying for the Final Examination have been approved:—

*Subject XVII.*

(a) DESIGN FOR AN ELEMENTARY MIXED SCHOOL.

|                       |                    |
|-----------------------|--------------------|
| Aslin, C. H.          | Loweth, S. H.      |
| Bisiker, R.           | Middleton, V.      |
| Brown, J. McL.        | Minns, S. E.       |
| Brown, W. J.          | Mitchell, C. H.    |
| Dailey, A. B.         | Nathanielsz, J. J. |
| Dougill, W.           | Palmer, J.         |
| Filkins, E. W.        | Piston, C. S.      |
| Hall, E. B.           | Pite, I. B.        |
| Harland, N. G.        | Routley, L. J.     |
| Holden, W.            | Smith, T. H.       |
| Keep, N.              | Tanner, A. S.      |
| Lancaster, C.         | Walker, H. F.      |
| Langruish-Toye, F. C. | Watt, W. J.        |
|                       | Whitehead, P.      |

(b) DESIGN FOR A CONCERT HALL.

|                 |                 |
|-----------------|-----------------|
| Derry, D. C. L. | Howcroft, G. B. |
| Dodd, R. F.     | Hall, V.        |
| Evans, T. C.    | Lyne, E., Junr. |
| Gooder, F. E.   | Shearer, T. S.  |
|                 | Takekoshi, K.   |

*Liability for New Boiler under Tenancy Agreement.*

Referring to the reply to an inquiry under this head on page 348 of our issue for December 9, Mr. John E. Yerbury, of London, E.C., writes: "I would advise 'Subscriber' to consult a solicitor on the question of his liability to replace the boiler under his tenancy agreement. I do not think the word 'replace' in the covenant could be held to mean 'replace with new,' but merely 'replace if lost.' I feel quite sure that the only liability under the quoted covenant is to leave the boiler in as good condition as it was taken over (less fair wear and tear) and such repair as may prevent the leakage is all that is necessary to satisfy the covenant, unless the boiler has been damaged in some way by the tenant, causing the leakage. Seven years would be an absurdly short life for a boiler with the worst water possible; and if this one has only had fair wear and it leaks, I certainly do not think that under his agreement the tenant should be called upon to do more than repair it."



## THE EFFECT OF FROST UPON CONCRETE.\*

BY JOHN HAMMERSLEY-HEENAN,  
Assoc.M.Inst.C.E.

As a result of considerable experience gained during the last few years, it can be said that the freezing of concrete will not cause any damage if it has first had a chance to set under favourable conditions for about two days. The effect of the freezing is simply to delay the process of hardening, which will again proceed under suitable conditions and will eventually attain its full strength. And even should concrete be frozen before it has commenced to set, it will not be injured if precautions are taken to prevent it from freezing again after it thaws, until it is sufficiently hardened to withstand the effects of subsequent freezings. It is alternate freezing and thawing during the process of setting that causes the damage.

To meet the foregoing conditions, when carrying out concrete work in winter, it is necessary to devise means of mixing the concrete with materials freed of frost, placing it in the forms before it has commenced to freeze, and then protecting it and keeping it warm for about two days. After that it may be allowed to freeze without fear of its being damaged.

In the case of concrete-in-mass, of large bulk, it is unnecessary to apply external heat, as the large body of concrete will generate sufficient heat during the process of hardening to enable the mass to set, all that will be necessary being to protect the outside of the concrete so as to keep the heat in. This can best be done by covering the concrete with clean straw.

For light sections of concrete, such as in reinforced concrete work, carried out at a temperature not below 22 deg. Fahr., some engineers allow salt to be used in a proportion not exceeding 10 per cent. There are many arguments for and against its use. The author prefers not to use it, except in marine works when the concrete is mixed with sea-water and the salt is admitted in that form. He has found that, instead of using salt, good results will be obtained for temperatures that do not fall below 22 deg. Fahr. by heating the water with a steam-hose taken from the mixer-boiler, and when necessary placing a few coke or wood fires on the heaps of sand and crushed-stone, the usual precautions being taken to protect the concrete when in the forms, as described later.

For lower temperatures than those referred to above, greater precautions must be taken to heat the ingredients by means of steam coils or radiators.

The concrete having been mixed, and the portion of the work to be carried out decided upon, the floor immediately below it should be partitioned off with tarpaulins, and coke stoves arranged under the floor-slab, allowing about one stove to every 800 sq. ft. of floor-space. All loose dirt and snow must be removed from the forms with brooms, and a steam hose should be applied to remove all ice and frost, the steam playing continuously over the forms in advance of the concrete, thus warming them in readiness for the concrete. The concrete should be laid quickly and continuously, and as each section is completed a tarpaulin may be drawn over it, supported on wooden strips about 6 in. above the surface of the concrete. In most cases this protection will be sufficient, but during very cold weather it will sometimes be

found necessary to form a sort of tent over the floor, in which extra stoves are placed to protect the workmen and the upper surfaces of the concrete.

Great care must be taken to have the fires kept burning continuously for two days, after which the concrete may be allowed to freeze without fear.

The work must be examined from time to time until it is found to be hardened sufficiently. During summer working the author has allowed the supports from the underside of slabs to be removed in four days, but on other occasions four weeks have not been found to be too long.

There are many examples of concrete works which have stood the test of time without showing any signs of being affected by frost; but, on the other hand, a few cases have been reported of very serious corrosion due to the action of frost, such as bridge-piers and reinforced-concrete piles.

Judging from the information available at present, concrete exposed in air in a dry locality need not be affected by frost any more than good building stone, and probably it will stand much better. Concrete always submerged under water is protected and need cause no anxiety. But concrete alternately wetted and frozen must be protected from frost. On work which is being carried out at Halifax, Mr. John Kennedy, M.Inst.C.E., is protecting the concrete piles between high and low water with a covering of wood about 2 in. thick, which it is hoped will prevent the action of frost.

## NEWS ITEMS.

### Business Announcement.

Messrs. William Jacks and Co., metal merchants, have opened a branch at 111, New Street, Birmingham, under the management of Mr. Claude A. Parson.

### The London Memorial to King Edward VII.

Through Alderman Sir Vezey Strong, Chairman of the Mansion House Committee, an anonymous donor has given £5,000 towards the amount required for the completion of the King Edward Memorial in London.

### Concrete for Flat Roofs.

Apart from recent war scares, there seems increasing evidence of the adoption of concrete for flat roofs, perhaps owing to the cheaper method of surface finishing. One of the most recent flat roofs is upon Southmead Workhouse Infirmary, which has been surfaced with "Pudloed" cement.

### American Opinion on Restoration.

At a recent meeting of the Architectural League of New York, Mr. Thomas Hastings, the well-known American architect, put forward the following opinion in regard to the destruction wrought by the Germans at Reims Cathedral: "To restore this structure further than to roof it and merely preserve what is now left, even if done in good faith, would be a further calamity—for, as we can no longer work in the spirit of its times, we cannot give back to the world this great monument in its original glory."

### A Civic Survey of London.

Viscount Peel, Chairman of the London County Council, opened at the Royal Institute of British Architects last Wednesday, an exhibition of civic survey drawings col-

lected to replace the drawings and lost by Professor Geddes through the burning of the Clan Grant by the Emden. The idea of collecting the maps and material, Lord Peel said, was to form a continuous survey of what London had been and it might be. Some of the town planning drawings showed that with very little action and without heroic efforts we might produce effective improvements in London town planning. The exhibition closed on December 19.

### The Replanning of Belgium.

Many of the leading architects and engineers of Belgium are at present in this country, and are carefully studying problems and systems of our towns, with a view to the eventual re-planning of destroyed and damaged towns of a native land. The Council of the Institute of Town Planning are now considering the best means of assisting their Belgian frères in their researches. Just before the war, Antwerp had under consideration a great scheme for the lay-out of the city now covered by the inner fortifications. Mr. Thomas H. Mawson went over to lecture on the subject before the Municipal Arts Guilds in that city.

## PROJECTED NEW WORKS.

### School, Dundee.

Dundee School Board propose to erect a new school in Bellfield Street.

### Housing Scheme, Holmfirth.

Holmfirth Urban District Council propose to begin a housing scheme with the erection of ten houses at a cost of £8,000.

### 243 Cottages, Kilmallock.

A Local Government Board enquiry has been held at Kilmallock, Ireland, in connection with a scheme formulated by the District Council for the erection of 243 cottages.

### Houses, Lichfield.

Lichfield City Council are to apply for power to borrow £4,100 for the erection of twenty workmen's dwellings in Goughs Road.

### Smallpox Hospital, Portsmouth.

Portsmouth Town Council has been asked to join with Gosport in the provision of a joint smallpox hospital for the two places, the Local Government having insisted on suitable accommodation being made.

### New Bridge, Windsor.

Details have been submitted to the Thames Conservancy Board of a new bridge at Windsor to replace the old Bridge. The plans approved by the authorities and Government Department provide for a new two-span bridge.

### Carnegie Library, Bethnal Green.

Mr. Andrew Carnegie has promised £15,000 towards the cost of a new library for Bethnal Green. The Local General Purposes Committee of the Borough Council ask for authority to take all necessary steps to acquire a site and erect the library thereon.

### More Town-Planning, Birmingham.

At a meeting of the Birmingham Town Planning Committee it was stated that the progress had been made with the South Birmingham scheme, and that the committee were making preparations for the commencement of a fifth Birmingham town-planning scheme, the location of which it was at present not advisable to disclose.

\* Summary of a paper read before the Institution of Civil Engineers on December 1.



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## ELECTRICAL NOTES.

### *Illuminating Engineering in War Time.*

At a recent meeting of the Illuminating Engineering Society a discussion on this subject was opened by Mr. Leon Gaster, the well-known expert on illumination. He stated that his object in raising the question was to point out how some aspects of the present situation affect the movement, and how the society can be of service to the lighting industry and the nation. After enumerating the various problems of lighting, from searchlights to flares and camp lighting, which the military authorities have to deal with, the speaker turned to the unusual lighting conditions prevailing in London. The most obvious change has been in the lighting of the streets and other large areas visible from above. The methods practised are broadly divisible into two classes: (a) Diminishing the power and the number of the lamps, and (b) covering the lamp globes with obscuring bands so as to block out the rays above and restrict the illumination below. Various combinations might be used to give the same result so far as the essential object of the authorities is concerned, but from the illuminating engineering standpoint the results might be widely different. For instance, the width of the obscuring band has a very material effect on the illumination of the roadway. In some cases the amount of observation is unduly high, and in other cases the area which is illuminated is very much less than in others.

The speaker said that the chief point of interest to the lighting engineer is, how far is it necessary to diminish the total amount of light, and how far is it possible

to meet the required conditions merely by redirecting the rays? Admitting that public safety comes first, the minimum inconvenience would naturally be caused by the latter method. It might be possible, without detriment to the authorities' wishes, to aim at greater uniformity of illumination and less spottiness. It might be useful to specify that the unobscured rays should be included in a certain prescribed maximum angle, and the greater this angle, the less the spottiness. After dealing with the depressing effect of diminished lighting on entertainments and shopping, the increase of accidents, and the lights on vehicles, Mr. Gaster turned to the lighting of shops. The interior lighting of the shops is not affected in any way, but when it comes to shop windows, the regulations are driving exactly in the direction advocated by the society for other reasons. It has been consistently pointed out that the best effects in shop window lighting are to be achieved by treating the window like a stage, where the brightly illuminated objects are made the chief points of interest and the lights themselves are concealed. This method is employed by most of the leading London stores, and the views originally expressed are endorsed now by the leading electrical contractors.

The present regulations have the effect of eliminating what is known as "parade lighting." A walk round any of the streets of London just now reveals an extraordinary diversity in the appearance of shops, and in the means adopted to comply with the police regulations. Lamps in the windows are swathed in varied degrees of opacity and colour, and in some instances the fact that the lamps have been tinted blue is apparently accepted as

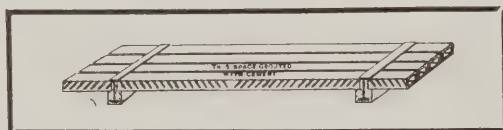
complying with the requirements of authorities. Of course, these attempts result in very indifferent window lighting, and it may safely be said that in most cases it would pay the shopkeeper to adopt concealed lighting in preference. The use of concealed methods of lighting should surely be encouraged by the authorities, and it seems reasonable to suggest that a general recommendation of lines of a rough standard of permissible intrinsic brilliancy, would go far towards supplying a simple rule for shopkeepers to follow. If, in addition, some limit on illumination is necessary in order to avoid undue lighting of the pavement, it is not very difficult to frame an additional recommendation on this point for the guidance of contractors.

Somewhat similar remarks apply to illuminated signs. Whilst the large signs should undoubtedly be prohibited, there are many mildly luminous and quite unoffensive small signs which should not be extinguished. The use of an illuminated fascia carrying the name of the shop or advertisement should also be considered. It might serve to screen the lamps if they are placed at the top of the window, provided the brightness is not much greater than that of the contents of the window. This would not seem to be any objectionable form of transparency sign. But in any case, the regulations at present in force could be complied with by using some form of silk shade for the time being.

A discussion followed, in which Mr. Goodenough (Gas Light and Coke Co.), Mr. Welsh (National Physical Laboratory), Mr. Macintyre (Office of Works), Mr. W. Willcox (B.T.H. Co.), and others took part.

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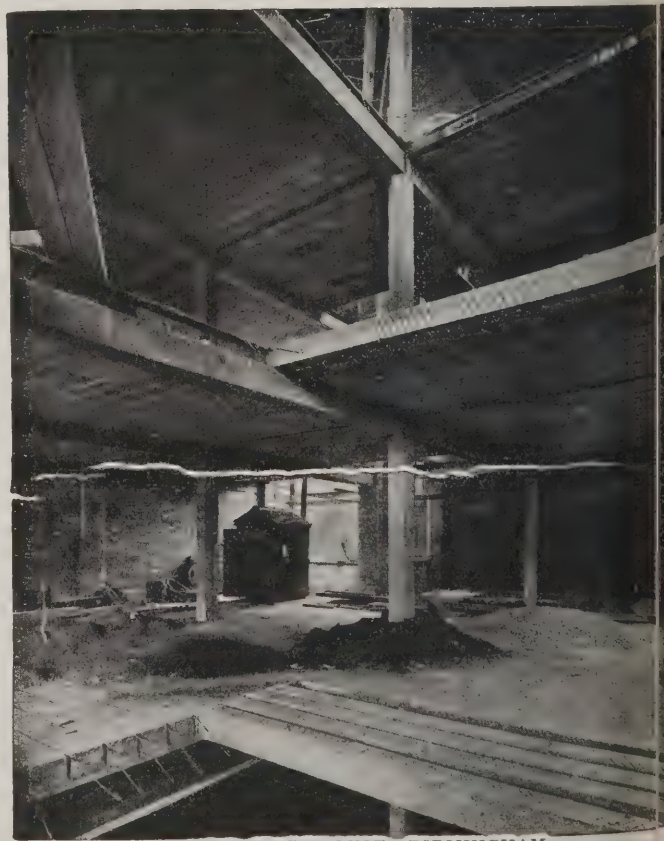
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NEW WAREHOUSE, BIRMINGHAM.  
View looking up through staircase well, showing the construction.

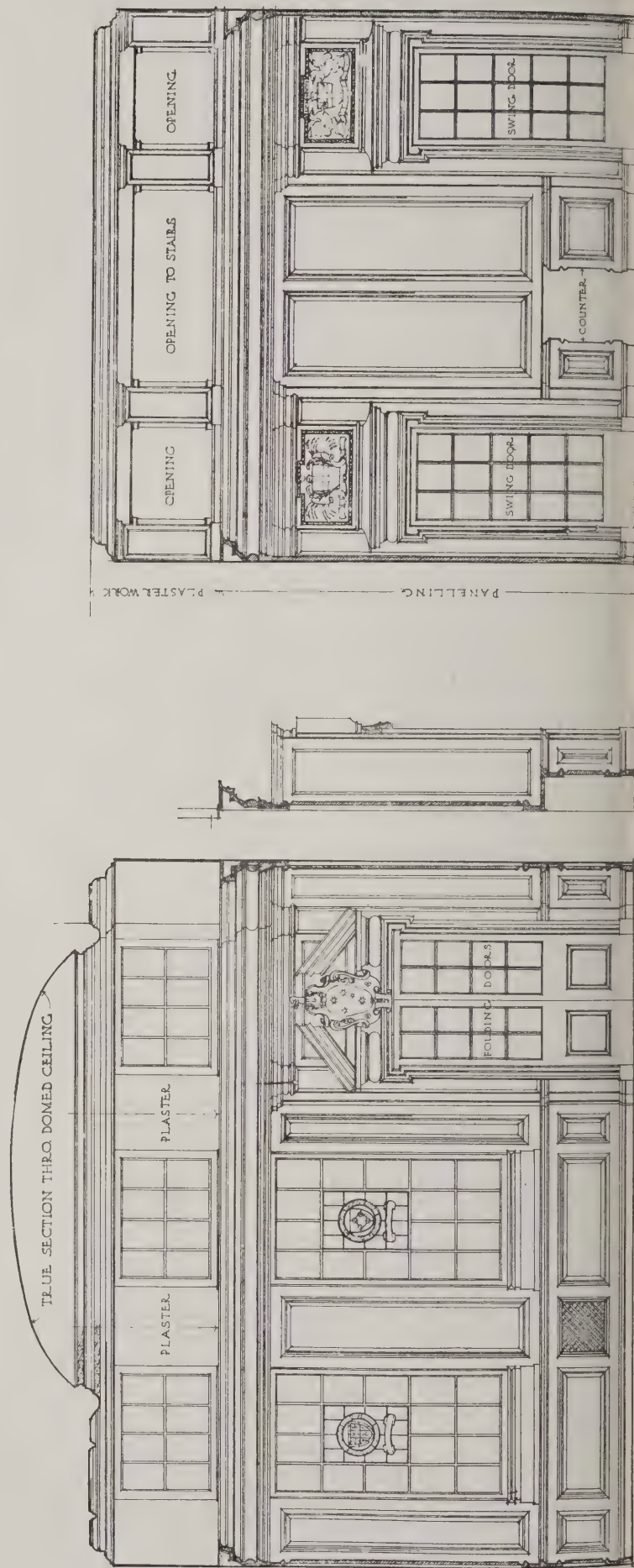


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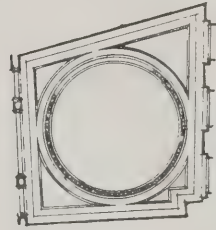
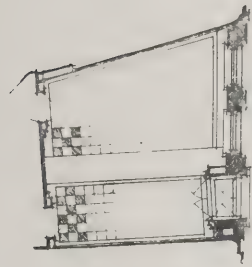
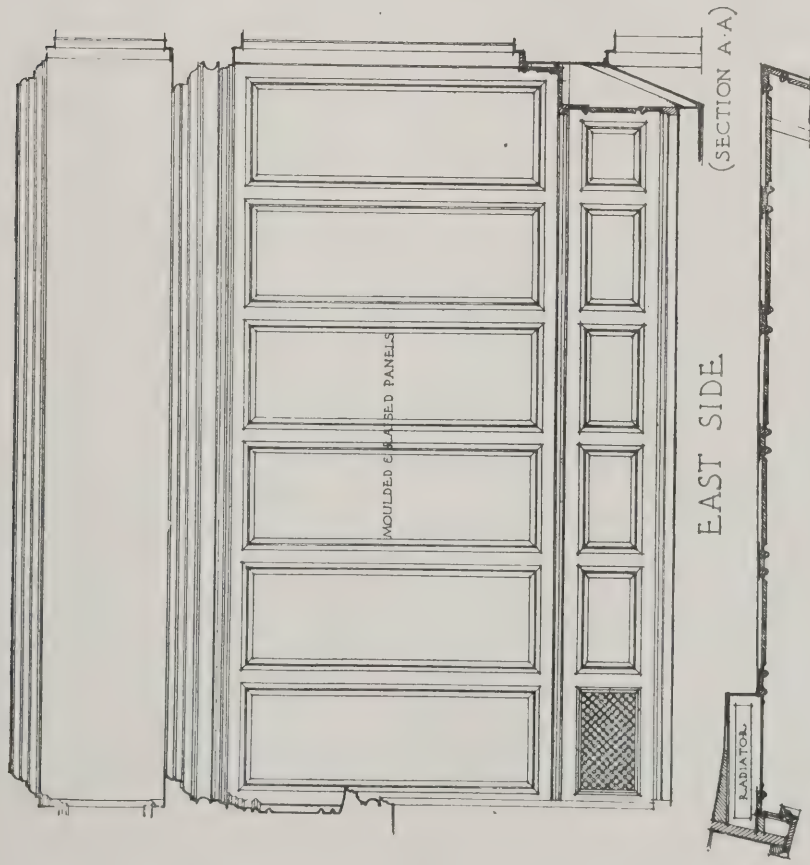


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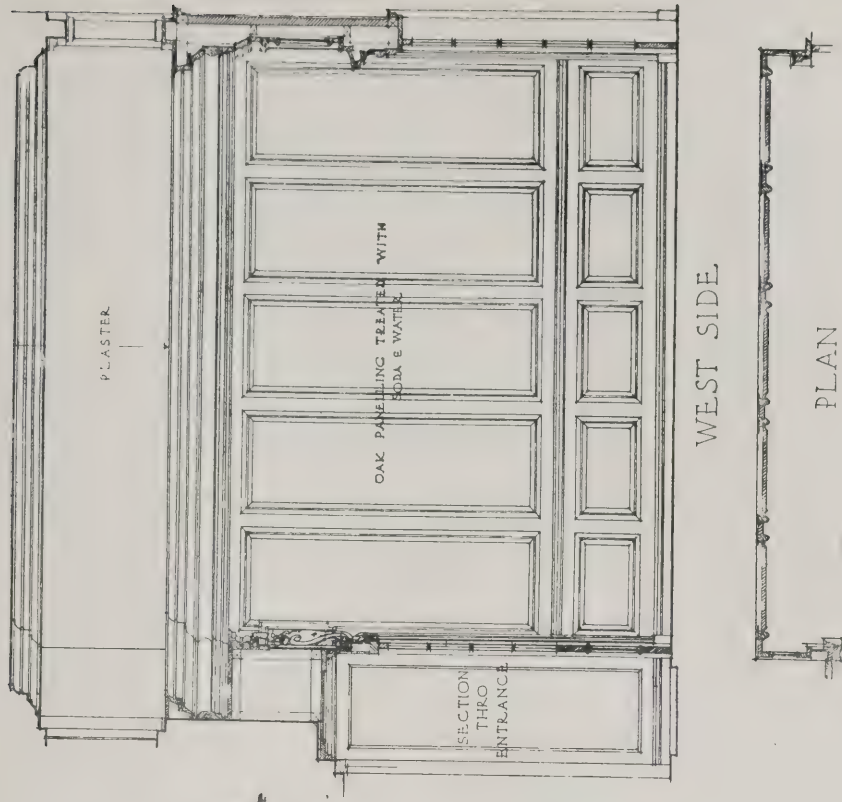
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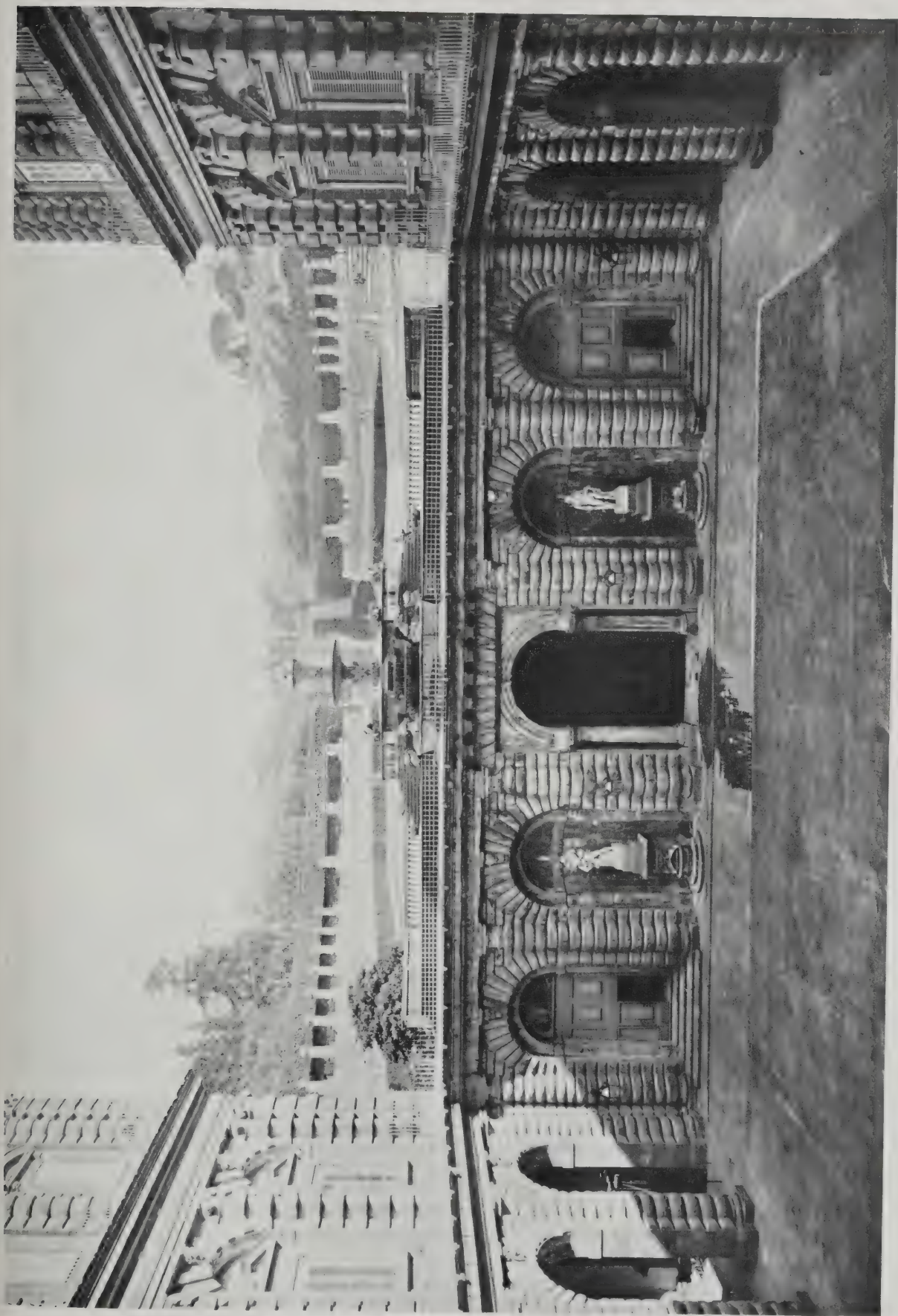
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H. GODDÉ, ARCHITECT.



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E. BOUCHARDON, SCULPTOR.



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HORACE FIELD AND SIMMONS, ARCHITECTS.



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MODERN DOMESTIC ARCHITECTURE. L.—KERFIELD HOUSE, KNUTSFORD, CHESHIRE: VIEW LOOKING FROM MORNING-ROOM INTO DRAWING-ROOM.

PERCY SCOTT WORTHINGTON. M.A., F.R.I.B.A., ARCHITECT.



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# THE ARCHITECTS' & BUILDERS' JOURNAL.

Wednesday, December 30, 1914.

Volume XL. No. 1043.



FONT IN THE CHURCH OF NOTRE DAME. TERMONDE.



# THE ARCHITECTS' & BUILDERS' JOURNAL.

DECEMBER 30, 1914.

TOTHILL STREET, WESTMINSTER.

VOLUME 40. No. 1043.

## ARCHITECTURAL AND BUILDING EVENTS OF THE YEAR.

FOR about one-third of a year made for ever memorable by the outbreak of the greatest war known to history, all other interests have been entirely subsidiary; but the following outline of the noteworthy events of 1914 will show that, as a whole, the year was by no means destitute of architectural interest. Wise and prompt measures taken by the Government to ensure the financial stability of the country, and to encourage employment in "the greatest of our synthetic industries"—building—have already resulted in a steady if gradual approach towards normal conditions, and the outlook for the New Year is upon all grounds distinctly hopeful.

### *The War and its Effects on Building.*

Promptly on the outbreak of the war, the Government passed a Bill authorising the expenditure of four millions sterling on housing, and thus set an excellent example to those who were disposed to pull tight their purse-strings and abide the turn of events. The London County Council, and very many local authorities, have followed the Government cue, and are acting upon the undoubtedly sound view that to spend money on works of real utility, and thus prevent unemployment, is a far wiser policy than that of "economising" on work and being thereafter compelled to disburse in charity the money that, wisely spent on construction, would not only represent a good cash investment, but would save the workers from mere pauperisation.

### *Prices and Contracts.*

Consequent upon the blockage of the Baltic, there was a marked tendency towards inflation of the prices of timber, but the upward movement was considerably modified when it became evident that the Government were prepared to deal drastically with an attempt to "corner" supplies.

In order to minimise the uncertainty with regard to prices and the cost of building, two courses have been adopted—an attempt has been made in Dublin and elsewhere to make a systematic periodical ascertainment of prices, and thus in a way to keep them under such control as vigilance implies; and the Institute of Builders tried unsuccessfully to persuade the R.I.B.A. to adopt a war clause in contracts, with the object of mutual protection for builder and client. An excellent clause was drawn up for private use by two architects, Messrs. Quennell and Townsend, by whose courtesy it was published in *The Journal*, and it has since been widely adopted.

### *Architects' War Committee Formed.*

On August 14 the R.I.B.A. held a special meeting at which it was resolved to give the President power to appoint a committee of architects, representative of the whole profession, to deal with circumstances arising out of the war, and accordingly there was formed, on August 18, the Architects' War Committee.

whose operations have been too recently chronicled to warrant recapitulation here. Its objects and construction were fully set forth in our issue of August 26. It is a pity that the Government has not seen its way to avail itself more freely of the services of this committee; in which case there would have been no such scandal about the military huts as that over which the opportunist newspapers made so much ado. The War Committee has received the hearty support of the Society of Architects, and of course of the Architectural Association, which is doing fine patriotic work as a recruiting agency.

### *German Vandalism.*

That the Germans could have wantonly destroyed such noble buildings as those of Louvain and Reims seemed at first blush so incredible that it was hoped that their plea of necessity or mischance was genuine; but their conduct has since revealed them as the ruthless enemies of beauty as well as of truth; these verities being apparent to a degree that is almost shocking in the examples of their war memorials that accompany the article on brutality in German architecture which appears elsewhere in the present issue.

### *The R.I.B.A.*

The annual report for the official year 1913-4 gives the membership at 2,603—Fellows, 852; Associates, 1,695; Hon. Associates, 56.

Most notable among the appointments to associations was that of Mr. T. E. Colclutt in the competition for the Ottawa Government buildings.

In his address to students on February 9, Mr. Bluffield took occasion to refer briefly to the controversy on classical versus mediæval architecture initiated by Mr. March Phillipps, and spoke of his own evolution from Neo-Gothic to Classic. Mr. Cave offered a customary criticism of the students' designs.

There was, on April 27, a full-dress debate on proposals for registration by charter, and the net result was an impression that the scheme was not likely to prosper.

The result of the subsequent R.I.B.A. elections so far as could be judged from the names, seemed to indicate opposition to the charter proposals.

Mr. L. March Phillipps, on March 25, delivered a lecture before the R.I.B.A., which was anticipated with a good deal of speculation as to how he would bring the lions in their den. He did it with admirable courtesy, and the ensuing discussion was dominated by the same suave spirit, so that we were taken no further forward in the controversy of which he is the great protagonist.

The Royal Gold Medallist this year was M. J. Pascal, who, on account of advanced age, was unable to come over to receive it in person.



Reginald Blomfield was nominated for a third year of office as President of the R.I.B.A., but, to the great regret, he was compelled, on considerations of health, to decline the honour, which thereupon passed to Mr. Ernest Newton, A.R.A., who was duly elected President on June 8.

#### *Registration and the Institute Charter.*

Consequent on the failure of the *rapprochement* between the R.I.B.A. and the Society of Architects, the body drafted a new Registration Bill of which the details were available for discussion in the first week of the year. It proposed a "Council of Architectural Education and Registration of the United Kingdom," to consist of persons nominated from time to time by the King in Council, and of architects chosen by the Councils of the R.I.B.A., the Society of Architects, and the Royal Irish Institute. It is understood that the Council are determined to take the first real opportunity of bringing the Bill before Parliament; but it is clear that, failing the co-operation of the Government, they might just as well spare themselves the trouble and expense. In the meantime, the Institute is so fully occupied with matters of more immediate importance that it has dropped the consideration of the duration of the war, or perhaps quite definitely, the consideration of its proposed new charter. It was on January 5 that the Institute resolved to adopt its council's recommendation to apply for a charter establishing a Register of Architects, an amendment in favour of promoting a Registration Bill was lost. What was generally regarded as a serious blot on the scheme was the dubiety of the position which it left the Licentiates.

#### *The London Labour Trouble.*

On January 17 the London Master Builders' Association, goaded to action by a series of "sympathetic" strikes, in which agreements were wantonly broken by officials of the trade unions being unable or unwilling to intervene, put forward an ultimatum, demanding that, on the following Saturday, January 24, every man should sign an agreement to work peacefully with non-unionists, whether these were employed by the principal contractor or by a subcontractor. The immediate result was a stoppage of work, and the dispute dragged on until August, and continued at one time to develop into a national lock-out. Its settlement coincided with the outbreak of the war, but, as the London Master Builders' Association state in their annual report, "it had been already quite clear that employers in all parts of the country were determined to maintain the inviolability of agreements."

The National Federation of Building Trades Employers of Great Britain and Ireland held, on January 28, its annual meeting, as usual, in London, Mr. W. Thomas, of Cardiff, was elected president. Naturally the London labour dispute occupied much of the time, and, as a result of the debate, two important resolutions were passed, the first according to any branches of the Federation finding it necessary to take action against breaches of working-agreements by the operatives, and the other limiting it with the advice that unless the executive committee of the unions could assure employers' association that joint agreements would be backed up by disciplinary power to ensure their observance it would be free to cancel all agreements.

#### *The "Battle of the Styles."*

Early in the year Mr. March Phillipps resumed, in the *Morning Post*, his attack on Classic architecture, here, on the prevalent modern cultivation of it, he is fain to admit, for example, that "the Doric is a visible incarnation of the spirit of intellectual lucidity which was the inspiration of Greek art and that 'here, in these structural forms, each

existing for the sake of the others, and gaining its individual consequence and beauty from its relation to the whole, are visibly expressed in the language of art, and with a subtlety of articulation that months of analysis will not exhaust, the hatred of eccentricity and excess, the love of perfect symmetry and sweet reasonableness which were the governing principles of Greek philosophy." Yet he will not tolerate the logical conclusion from these premises that therefore we could have no better exemplar in art than the Classic model. Although Mr. March Phillipps is so strongly opposed to the modern trend of thought and practice, he is such a suave and chivalrous opponent that it is always a pleasure to cross swords with him. His reactionary gospel does not seem to have gained any adherents, but, on the contrary, has rather tended to confirm the faith in Classical influence.

#### *Notable Competitions and Building Projects.*

Forty sets of designs were submitted in the St. Paul's Bridge competition, Sir William Emerson, the assessor, making the following awards: First premium, £300, Mr. George Washington Browne, R.S.A., Edinburgh; second, £200, Mr. Charles E. Barry, London; third, Mr. E. R. Douglas Selway, A.R.I.B.A., London.

A hundred and eighty-seven designs were submitted in the competition for offices for the Board of Trade to be erected on a site between the Embankment and Whitehall, and the authors of ten selected designs were each to receive an honorarium of £300, and to take part in a final competition.

In April the result of the preliminary competition was announced. The ten firms selected for the final were: Adams and Holden; Ashley and Winton Newman; C. T. Armstrong; Atkinson and Alexander; Buckland, Haywood and Farmer; T. Edwin Cooper; Charles Gascoyne and George Nott; E. Vincent Harris; Alick G. Horsnell and A. H. Brownrigg; Percy Thomas, Ernest Prestwich, and Ivor Jones. The new building is to be in two blocks, to cost approximately £285,000 and £270,000. The assessors are Sir Aston Webb, Mr. Reginald Blomfield, and Mr. Ernest Newton.

In January the Metropolitan Water Board announced that they had invited the following six architects to submit designs for their new central offices—Mr. Burnett Brown, Mr. Edwin Cooper, Mr. H. O. Ellis, Mr. E. T. Hall, Mr. H. T. Hare, and Mr. H. Austen Hall. The first premium was awarded to Mr. H. Austen Hall, F.R.I.B.A., who was subsequently appointed architect to the building.

Another outstanding competition is that for the proposed Shakespeare Memorial Theatre, for which the assessor is Mr. T. E. Collcutt. It is hoped that the scheme will go on in spite of the war, and that the design for which the 500-guinea premium is gained may mark, or, rather, accentuate, a new era in theatre design.

Contrary to their usual practice, the London County Council invited competitive designs for two new schools, at Battersea and at Greenwich respectively. Mr. Arnold Mitchell, F.R.I.B.A., took first place for the Battersea School, and Messrs. Wright and Chapman, of Newcastle, that for the school at Greenwich.

In April was announced a competition for the improvement and extension of Dublin, the Lord Lieutenant (the Earl of Aberdeen) offering £500 for the design placed first.

The Liverpool Public Park competition was won by Messrs. H. Chalton Bradshaw and G. H. Rowlands, who produced a lay-out of high merit.

Mr. J. Cumming Wynnes, Licentiate R.I.B.A., won the Belfast Art Gallery and Museum competition.

The Chester Corporation housing competition was



decided in June, the assessor, Mr. Patrick Abercrombie, making the following awards: 1, Messrs. James and H. A. Dod, Liverpool; 2, Mr. John S. Hardie, Egremont; 3, Messrs. Ireland and Hanscomb, Ealing.

#### *The Admiralty Arch.*

The Mall Approach Improvement Bill, which was discussed in the House of Commons on its second reading in April, not only provides for the clearance of the obstructive buildings near the Admiralty Arch, but gives power to the First Commissioner of Works to veto unsuitable designs for the façades of the buildings on the Charing Cross side of the arch. Sir R. W. Essex thought that this power should be extended beyond that of mere veto—that the First Commissioner should be entitled to choose the architects, but this rather drastic view did not commend itself to the House.

#### *The Projected Australian Capital.*

An effort to get out of the muddle caused by mismanagement of the competition for the lay-out of the proposed new federal capital of Australia at Canberra having been postponed in consequence of the war, there is perhaps some chance that the whole scheme may eventually be revived *de novo*, upon such conditions, it may be hoped, as will meet with the approval of the organised architects throughout the world who previously were debarred from taking part in the competition.

A competition for a Federal Parliament House for the new capital was announced in July, with the following assessors: Mr. George T. Poole, Australia; Sir John J. Burnet, London; M. Victor Laloux, Paris; Mr. Louis H. Sullivan, Chicago. The ultimate cost of the building is not to exceed one million sterling; but the competition is held in abeyance in consequence of the war.

#### *The New Delhi.*

Not very much was heard during the year of the new Delhi, but in April the Government of India submitted to the King a special report, in which it was estimated provisionally that the entire cost might be about £6,000,000, the cost of the buildings being estimated at something like £2,800,000. Drawings of the Indian Secretariats and Government House, forming the great block of capitol buildings designed by Mr. Edwin L. Lutyens and Mr. Herbert Baker, were exhibited at the Royal Academy in May.

#### *Housing and Town Planning.*

In January a Local Government Board memorandum relative to operations under the Housing and Town Planning Act, 1913, reminded local authorities of their power under section 15 of the Act to execute, at the landlord's expense, specified works to render a house "in all respects reasonably fit for habitation."

In May a Departmental Committee was appointed by the Local Government Board to inquire into the working of by-laws and regulations, the idea being that, as a general rule, local by-laws are much out-of-date and, on the whole, rather too stringent.

As a topic of perennial interest, the housing question has not only continued to hold its own, but has assumed important new phases, of which not the least striking is the rebuilding of the Duke of Cornwall's estate at Kennington, where Messrs. Adshead and Ramsey have produced houses that, besides being especially well planned, are of really delightful architectural character.

With the projected huge extension of the Port of London Docks, an increase in the housing accommodation of the workers has become necessary, and in April plans were sanctioned for the erection of 164 houses on part of the Prince Regent Lane estate.

An Imperial League Conference and Exhibition was opened at the Imperial Institute in May, the object

being to give a complete review of the town-planning movement as it has developed in the United Kingdom and the Colonies.

Mr. Thomas H. Mawson was commissioned to prepare plans for the extension and remodelling of Athens. A great road was to be constructed between Constitution Square and the Zappeion Gardens to the Acropolis, and round the base of the ancient ruins.

#### *Architectural Education.*

So successful has been the First Atelier in London that arrangements were made for a second, but it is to be feared that the project must languish somewhat during the war, the students of such an institution being mostly of the age for military service.

The British School at Rome appointed, in March, several faculties, that of Architecture comprising Reginald Blomfield, Mr. W. Curtis Green, Mr. W. Lethaby, Mr. E. L. Lutyens, Sir Robert Lorimer, Ernest Newton, Professor C. H. Reilly, Mr. J. Simpson, Mr. Leonard Stokes, and Sir Aston Webb.

The Rome Scholarship in Architecture was awarded in June, to Mr. Philip Dalton Hepworth, and the James Studentship to Mr. Ernest Cormier.

Following, at a rather long interval, the lead of Liverpool and other universities in the country, Loughborough University decided to establish a school of architecture, and to see that it was properly housed. In the last week in June the new building, designed by Professor F. M. Simpson, was inaugurated with a *conferenza*, at which Prince Arthur of Connaught was present. Plans and elevations of the building were given in our issue of July 1.

In June it was announced that the Senate of Loughborough University had decided to institute a "part-time" Chair of Town Planning, with a salary of £400 a year, and Professor S. D. Adshead, of the Liverpool School of Civic Design, was elected to the post. He delivered on October 15, an extremely able inaugural lecture.

#### *British Architects in Paris.*

At the invitation of the Société des Architectes Diplômés, Paris, a joint committee of the Institute of Architects and the A.A. made a collection of British architectural designs which were exhibited at Paris in May.

The exhibition drew from this country most of the distinguished architects, who were treated with all graceful hospitality for which our French friends are famous. The exhibition, in the unavoidable absence of the President of the French Republic, was opened by M. Paul Jacquier, Under-Secretary of State for the Beaux-Arts. At the banquet Mr. Reginald Blomfield responded for the British guests.

#### *Personalia.*

Sir Henry Tanner retired from his position in the Architects' and Surveyors' Division of the Office of Works, which he had served with credit and distinction for forty years, but he is still retained by the Government in a consultative capacity.

Mr. E. S. Prior, Slade Professor of Fine Arts at Cambridge, was elected to the vacant Associateship of the Royal Academy created by the promotion of Mr. Blomfield.

On May 3 the King opened the new extension of the British Museum, which was designed by Dr. J. J. Burnet, who was afterwards accorded the honour of knighthood.

For us a not unimportant event of the year was the removal in October to new offices in Tothill Street, where Messrs. Richardson and Gill have made for the Journal and associated publications a comfortable and convenient home; its accommodation including a reading-room for subscribers.



## SOME NOTEWORTHY BUILDINGS IN THE WAR AREA.

[SPECIALLY CONTRIBUTED BY G. A. T. MIDDLETON, A.R.I.B.A.]

THE area covered even by present active operations in the great war now in progress is so vast that to describe in anything like detail even the principal buildings which are within it would be impossible in the course of a single short article. Even if attention be wholly, or almost wholly, devoted to the district of Western conflict, it has to be borne in mind that there are marked differences between conditions in the lying towns of Flanders and in the wooded and hilly land on the Swiss frontier, and that the towns involved are, or have been, enriched with great architectural monuments varying correspondingly in type and character.

On point of antiquity, first place must be given to the Roman triumphal arch at Reims known as the Porte de Mars, which was erected in the fourth century A.D. It consists of three arches—each large enough for carriages to pass through, but the centre largest and highest—separated from one another by coupled Corinthian columns standing upon pedestals, and flanked by similar coupled columns at either end. Originally these columns were fluted, but the building has suffered much by devastation (it witnessed, for instance, the havoc wrought by the original invader and his Huns), and by restoration also, so that it is not easy at the present day to discern the original work among what is more recent; the arch, moreover, has lost its entablature, and all that there may have been above it, entirely. Nevertheless, as it stands, it is the most impressive monument in Northern Europe, a monument typifying the overbearing military rule of

ancient Rome, and, as such, markedly significant just now—overbearing, proud, and yielding only to force, having withstood all other influences for fourteen hundred years, but possessing neither grace nor beauty.

Quite otherwise is it with the two remarkable ecclesiastical buildings of Reims, the Church of St. Remi, and the Cathedral—most cherished of all in France. Each is symbolical, though in a differing way, of the overflowing loving-kindness of the Christian faith, and each has withstood as steadfastly, and even more completely, the ravages of time as measured by centuries, till overwhelmed to greater or to less extent by the brute force of the invader.

St. Remi, altered and added to from time to time, still remains (or did remain until the German bombardment commenced) an Early Romanesque structure in all essentials, whose dominant note was peace. There is always solemnity in a nave arcade of massive piers and semi-circular arches, and when, as at St. Remi, there is aisle vaulting of an early type carried around a semicircular apse, with chevet chapels opening out of it, this sense of solemnity rises to poetic beauty, of a quiet and stately type. Similar is the impression of the exterior, yet with a sense of aspiring loftiness rare in such early work, inspired withal by the slender tower and the range of narrow but deep flying buttresses—the earliest in existence, and of a character which was subsequently to become typical of France.

There are other great French cathedrals, one is thankful to be able to say, besides that at Reims, each



PALAIS DU GOUVERNEMENT, NANCY. EMMANUEL HERRÉ, ARCHITECT.



supremely beautiful in its own way; yet, for perfection of proportion (with the one jarring note of the ill-placed *flèche*), for grandeur of entrance, and for sublime majesty of interior, neither Amiens nor Chartres, Rouen or Bourges, could compare with Reims—nor will again when much time and loyng labour shall have restored, as will surely be, the greater part of its magnificence. Solidly constructed, with even its lofty vaults heavily counterpoised by the nave walls, carried unusually high above them, the structure has so far most marvellously resisted the ordeal of heavy shelling, day after day, for weeks on end, to which it has been subjected; and so it is probably not beyond repair if only craftsmen can be found to emulate the original carving and the wonderful sculpture. This, greatly damaged, still remains in part, and one hopes against hope that it may continue to the end to show to ages to come, as it has done to generations past, the level of achievement to which the spirit can raise a craftsman—even higher than did the intellectuality of the Greek or the sensuality of the sixteenth-century Italian.

Other great churches, of cathedral magnitude, if no

longer all of them of cathedral rank, which have suffered severely since August, are those of Malines, Ypres, and Louvain, the last-named—the great Church of St. Pierre—having to all intents and purposes disappeared: nothing remaining but mere heaps of ruins within a shell of battered masonry. The none of them approached the magnificence of the great French cathedral, each had, nevertheless, its own special peculiarities and points of beauty of interest. The Cathedral of Malines, carefully conserved for the last forty years or so by an unexampled priest-architect, Canon Von Caspary, possesses the tallest tower of any cathedral in the world, a landmark throughout all the country round. Sturdy, well constructed, and well designed, though never completed, having been intended to carry an open lantern which would still further have increased its enormous height. Internally it was bare, even, statues, carried on consoles protruding from the cylindrical piers of the nave arcade, being whitewashed, the only feature of real interest being the ornate but elaborate but well-carved pulpit and sounding board



MALINES CATHEDRAL.



ORIGINAL DESIGN WITH SP.





GENERAL VIEW OF CRACOW, SHOWING ROYAL PALACE, CATHEDRAL, AND BARRACKS.

The Church of St. Pierre at Louvain was most renowned for its architecturally least satisfactory feature, an elaborate stone rood screen of late Flamboyant design, strangely out of harmony with the rest of the church, though typical of its date and country. This church, like the Cathedral at Malines, possessed a wonderful font cover, an elaborate pulpit, and also

most excellent Renaissance woodwork in the organ gallery and in the south transept, besides some ironwork in locks, hinges, and ventilators to ambry doors of exquisite workmanship.

The Church of St. Martin at Ypres formed one of a group of buildings which, with the possible exception of those at Westminster, might justly claim the dis-



Photo: F. R. Yerbury.

OLD HOUSES, BRUGES.



CHURCH OF ST. GUDULE, BRUSSELS.



tion of being the most picturesque in the world. Its tower was of such proportions as effectually to "stop" the whole of the nave at the west end without overpowering it, the doorway being exceptionally well conceived, giving abundant welcome without detracting from the general impression of strength. Internally, the huge clerestory windows and the fine apse contributed to spaciousness; but the principal points of interest were to be found in the delicately carved Renaissance choir stalls, and the confessional box in the south aisle, behind them—the work of the carver Taillebert in 1598. The great bronze font and its cover, the small cloisters with glazed tracery, and the adjacent 18th century monastery, were also exceptional, and rarely seen by visitors.

The Cathedrals of Antwerp and Tournai in Belgium, and of Laon in France, are all within the immediate area of the war: so, too, are the graceful Church of St.

traced outside that which exists, it was either never built, or else was replaced in the 13th century by the present beautiful Gothic apse, whose clerestory windows shed a flood of light down the otherwise sombre nave. The west end is purely Italian in feeling, while the doorways flanking the north and south apses are Saracenic both in form and detail, crowned with a pointed horseshoe arch—that is, pointed on the extrados. Evidently somebody was in charge of the building, or, at least, influenced it greatly, who had travelled far and used his powers of observation, and the pointed extrados in such early work suggests the bare possibility that here, at Tournai, is to be found the clue of the solution of the long unsolved riddle of the introduction of the pointed arch to North-Western Europe.

Laon Cathedral has a rectangular east end, with lancet lights, and was known to have been built by



HOUSES OF THE GUILDS IN THE GRAND' PLACE, BRUSSELS.

Gudule at Brussels, the Collegiate Church at Huy, and the elaborately decorated Renaissance Church of St. Loup at Namur, which possesses a series of confessional boxes that rival, if they do not excel, those of St. Paul at Antwerp; but these have all, so far as is known, escaped actual damage so far, and may consequently be passed by here with comparatively casual reference only.

Antwerp Cathedral has its main interest in its plan, for it possesses triple aisles on either side of the nave, but its principal beauty is its lantern tower, rising up and up in decreasing stages, lightly traceried, wonderful in its grace, and the admiration of everybody, particularly of those who see it first from the Scheldt in the early morning, as they approach Antwerp by water.

Tournai Cathedral also has an interesting plan, for it is triapsidal. The north and south apses and the nave belong to the early 12th, or more probably the 11th, century, but though the foundations of the eastern apse of the same date can easily be

Englishmen—and close to it is a small circular Templar's church, whose details are almost identical with those of the church at Barfreston, in Kent.

St. Gudule, at Brussels, is almost too well known to call for description, but possibly the roofs of the south aisle chapels, with blind tracery in the gables, may not have been noticed by everyone, though these are the examples nearest to England of this characteristically North German feature.

The Collégiale at Huy—the great Collegiate Church in the little town on the Meuse, midway between Liège and Namur, where Peter the Hermit commenced to preach the First Crusade—is only specially remarkable to an architect for the extraordinary height of the unsupported mullions of the windows around the apse, but probably there is more support actually than appears to be the case, in the form of iron bars.

Turning next to buildings of civic character, the greatest loss sustained has been that of the Cloth Hall at Ypres. Commenced in 1300, it altogether took just



a hundred years to complete. The main gallery, the first floor, was no less than 430 ft. in length, the base of the tower rising through it at the east end. This gallery, moreover, had two return wings, forming the letter J on plan. The windows on this gallery presented externally the appearance of a continuous arcade with geometric tracery within the pointed arches, each alternate one being glazed; the others being replaced by sculptured figures in the rest. Presently this great building at Ypres inspired some of Mr. Alfred Waterhouse's most notable conceptions. Another building within the war area to which an English architect seems to have been indebted was the Mont de Piété at Liège, a great rectangular mass rising by the riverside, crowned by a strong square tower, and built of red brick with stone bands, in the "half-timbered" style which was made familiar to the English generation by Mr. Norman Shaw and his numerous followers.

There is no definite news of the fate which has overtaken the picturesque Hal aux Draps at Malines, or the neighbouring ruins of the Palace of Margaret of Austria, while the more elaborately designed of the Flemish Hotels de Ville—at Brussels, Louvain, Ghent, Arras, and Audenarde—all appear so far to have escaped serious damage. On the other hand, the only Hotel de Ville of Flemish character which stood on French soil, at Arras, has been utterly destroyed. It presented a Flamboyant front, with a strong square tower, rising into an octagon, and terminating with an ornate crocketed crown of stone.

It is probable, too, that there is not much left of the Hotel de Ville at Reims, a building, exceptional rather than beautiful, commenced in the days of Louis XIII., in 1627. The other great Renaissance Hotel de

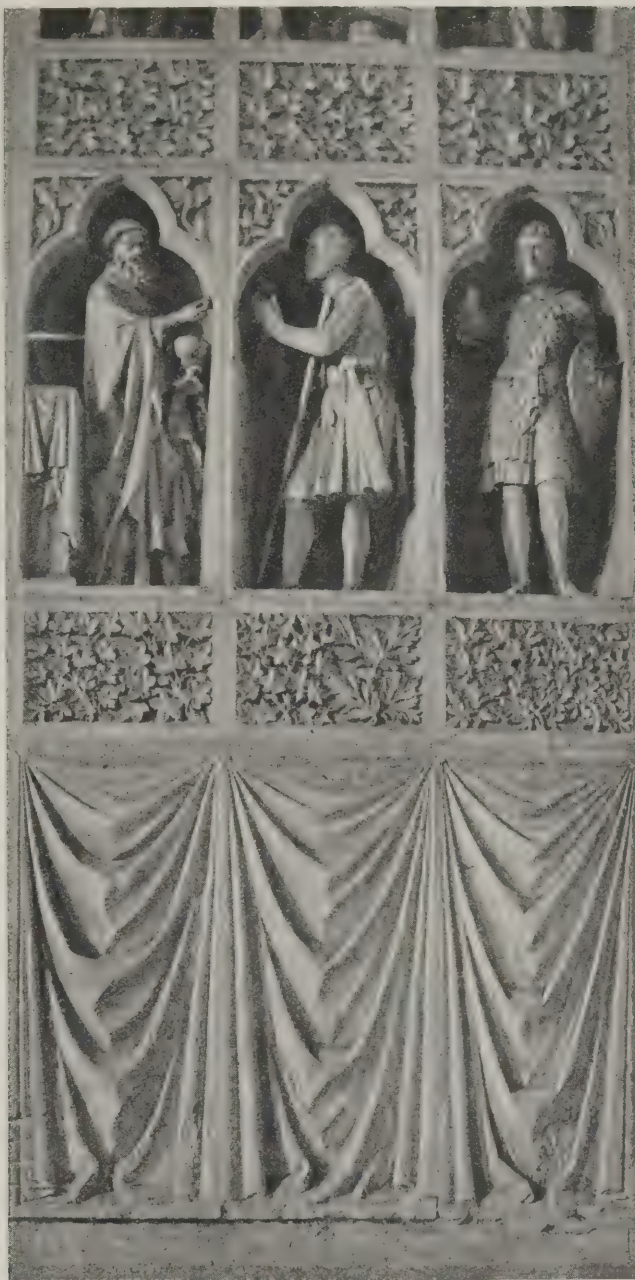


Photo: G. A. T. Middleton.

SCULPTURES ON WEST WALL OF NAVE, REIMS CATHEDRAL.



Photo: G. A. T. Middleton.

CHURCH OF ST. LOUP, NAMUR.

Ville in the war area, that at Antwerp, remains intact, as also, so far as is known, does that most curiously grotesque mixture, the Palais de Justice at Liège, and Poelaert's wonderful pile, the Palais de Justice at Brussels. So, too, the delightful French eighteenth-century architecture at Nancy, carried out by Herré, including the Place Stanislas, the Place de la Carrière, and the Palais du Gouvernement.

As for the domestic buildings of Belgium, those best known to us in this country are the picturesquely outlined but badly detailed houses of Bruges which, like those of similar character in Holland, were built shortly after or during the Spanish occupation—that is, during our Elizabethan and Jacobean periods. The best examples of the class are the Guild Houses in the Grand' Place at Brussels, which, especially since they were coloured and gilded at the instigation of M. Buls, the architect who was Burgomaster twenty years ago, have possessed that class of beauty which one associates with the stage at its best.

Another type, and an earlier one, is that of the ornate Late Flamboyant house, either in brick (as at Ypres and Louvain) or in stone (as in the Shippers' Houses at Ghent)—most delightful relics of a past age of great commercial importance.



## THE PLATES.

NOTE.—*The area covered by the War being so extensive, it has not been possible to give more than representative illustrations in this series; and in order still further to bring the matter within a practicable compass, the survey has been limited to those places which are now or have recently been occupied by the Germans, or threatened by them. In passing the series in review it is opportune to contrast the beauty and the grace of these ancient buildings of Belgium and France with the brutal spirit that underlies the architecture of modern Germany, of which the Leipzig Memorial, illustrated on page 389, is a typical example.*

## PLATE I.—ANTWERP CATHEDRAL.

THE north tower and spire of the great Cathedral of Notre Dame at Antwerp reaches to no less a height than 403 ft. 7 in. It was commenced by Jan Amelius in 1422 and completed by Applemans, of Cologne, in 1518. According to the original design, both towers were to be alike, but, like many another similar scheme, this was never carried out in its entirety, the south tower having been left unfinished in 1474, when only one-third of its projected height had been reached. The north tower has a carillon of sixty bells.

## PLATE II.—CHURCH OF ST. CARLO BORROMEO, ANTWERP.

This is an example of Baroque architecture, owing most of its character to Italian work, but stamped nevertheless with certain local characteristics. The church was designed by a Jesuit, Father Aguilon, and was erected originally in 1614-21. In 1718, however, a disastrous fire occurred, when the bulk of the fabric was destroyed. The existing church is a rebuilding on the lines of its predecessor, though with less magnificence. The façade was restored in 1910. Rubens painted a number of altar-pieces and ceiling panels for the interior, but these were almost all destroyed in the fire of 1718. The plan of the church is that of a basilica, with galleries and apse.

## PLATE III.—CHURCH OF ST. PIERRE, LOUVAIN.

This fine church shared the fate of the Library at Louvain, and now stands open to the sky—a sad ruin, nothing remaining but the walls and the lower portion of the tower. The building dated from the early part of the fifteenth century, a period which witnessed the rise of the great cathedrals of Notre Dame at Antwerp, St. Rombaut at Malines, and St. Waudru at Mons. The architect was Sulpice van Vorst, whose original scheme was carried on by the master-masons who succeeded him, prominent among them being Mathieu de Layens—the same master-mason who erected the Hôtel de Ville at Louvain. In the eighteenth century considerable changes were carried out inside the church. At that time it lost much of its fifteenth-century furniture, and many alterations were made which were not in keeping with the general style of the building. The rood screen, with its three vaulted openings, was erected in 1488. There were originally some remarkable statues on it, but in 1798 they were taken away, and the others which were subsequently put in place dated from 1834, in which year the rood screen was restored. The organ, the work of Jean Crimon of Mons, dated from 1556. The pulpit was executed in 1742 by Jacques Berger for the Abbey Church of Ninove; it was placed in St. Pierre in 1807. The whole building was restored in 1871 and again in 1885. The length of the church was 400 ft., the width 90 ft., and the height 82 ft.

## PLATE IV.—THE CLOTH HALL, YPRES.

Of all the Cloth Halls in the Netherlands that of Ypres was the largest and the most impressive. Ypres was the centre of a great industry in cloth, linen, and lace in the fourteenth century, when the number of its inhabitants was 200,000, and 4,000 looms were constantly at work. The erection of the Cloth Hall, with its Belfry, extended over a hundred years. This fine structure, 436 ft. in length, stood in the market-

place of the town. On the ground floor of the building was an arcade where market stalls were erected, while above, on the first floor, was a hall extending the whole length of the building and embellished with frescoes. Built on to the eastern end was the Hôtel de Ville or "Nieuwerck," a structure of Renaissance type, with an open arcade at ground level. It was erected in 1620-24, probably from the design of the Ghent architect, Jean Sporeman. The Cloth Hall was restored in 1860, and at the time of the recent bombardment the Belfry was surrounded with scaffolding which, as at Reims, caused the fire to spread and burn more fiercely.

## PLATE V.—CATHEDRAL CHURCH OF ST. MARTIN, YPRES.

Within and without this was a beautiful building—now ruined by the German bombardment. At the west end rose a magnificent tower, dating from the middle of the fifteenth century. It was erected in 1433 according to the plans of Martin Uutenhove, of Malines, though the projected spire was never added. The oldest part of the church is the choir, which dates from the first quarter of the thirteenth century: the nave and transept are later, having been erected in 1254-1266. There is some very remarkable woodwork in the church, above all the Renaissance choir stalls, which are a wonderful example of carving by Taillebert: they were executed in 1598. And hardly less interesting is the pulpit—a very rich example of wood carving, including much figure work. Notable too, are the brass font and the screen in front of the Chapel of St. Anna, on the south side. The high altar is Baroque in character, and includes an Assumption ascribed to Luca Giordano. The internal length of the church is 317 ft., and the width 168 ft.

## PLATE VI.—OLD HOUSES, GHENT.

Ghent possesses a number of interesting old houses but none present façades of more piquant character than those on the Quai aux Herbes—fantastic relics of the Early Renaissance in Belgium, when Gothic and Classic forms were being intermingled. Such houses are not to be studied as careful scholars study compositions, but rather as architectural documents of a past age, overspread with the glamour of historic associations and the passing of centuries: despite the inevitableness of restoration. The building shown on the right-hand side of the plate is a fine old guild house, the *Maison des Francs Bateliers*, erected originally in 1531: the house next to it being the *Maison des Mesureurs de Grain*, dating from 1698.

## PLATE VII.—CHURCH OF NOTRE DAME, HUY.

In this interior verticality is the dominant note, the nave being carried to a height of 82 ft. The effect is very impressive, especially at the eastern end, where the tall narrow windows produce a remarkable effect both within and without. The church was erected originally in the fourteenth century—from 1311 to 1377—but was largely rebuilt in the sixteenth, as the result of a fire. Above the west portal is a fine rose window. The Bethlehem portal, with sculpture executed in the latter part of the thirteenth century is also a notable feature of the church: while among the treasures within the building are four statues in the sacristy dating from the eleventh and twelfth centuries. The reliquary on the high altar is modern.



ATE VIII.—BRUGES, FROM THE QUAI VERT. Bruges offers so many points of interest that it is difficult to select any particular one in preference to another. This view, however, from the Quai Vert may be considered as extremely typical of the picturesque old town, which in the time of its greatest prosperity—the thirteenth and fourteenth centuries—was one of the chief commercial centres of Europe. Dominant from every standpoint is the Belfry, the top of which is seen in Mr. Yerbury's photograph. The little bridge shown is the Pont du Cheval.

PLATE IX.—HOTEL DE VILLE, BRUGES. Belgium is a land of Gothic Hôtels de Ville, those of Antwerp, Oudenarde, and Brussels chief among them. The building at Bruges is on a less magnificent scale than these, but is none the less interesting for its account. In some respects it is indeed the most important of them all. It was begun in 1376, but much of the old work has disappeared in modern restoration—the last of which was completed in 1871, when statues of Counts of Flanders were erected in place of those which were destroyed in 1792 by the French Revolutionists.

PLATE X.—THE CLOTH HALL, MALINES. Malines possesses two buildings of especial interest. The Cathedral, with its magnificent tower (see photograph reproduced on page 382—for which we are indebted to the Society of Architects and Mr. Ellis), and the Cloth Hall on the Grand' Place. The latter, like many other buildings in Belgium, is a part of what it was originally intended to be—the belfry, which was to be its principal feature, never having been carried out. In place of it now exists but a lower storey crowned by a steep gable and flanked by octagonal turrets, all of which date from the sixteenth century. The main fabric of the building dates from the fourteenth century, having been begun in 1311-26. Despite its incompleteness, however, this building, with the old houses to the right and left, constitutes a most fascinating group.

ATE XI.—CHURCH OF ST. JACQUES, LIEGE. This is not an example of the best period of Gothic, but presents nevertheless a very striking interior (restored in 1895). The plan comprises a wide nave of five bays with aisles, north and south transepts, and a small choir with radiating chapels. The total length is 265 ft., the width 100 ft., and the height 75 ft. The bulk of the building dates from the early part of the thirteenth century. The arcade and walling are decorated with carving, and the vault is picked out in blue and red colour; colour, too, has been laid on the stone in the choir, with unhappy effect. The organ case at the west end, its case being of seventeenth-century date, the work of Andreas Severin, of Maastricht.

ATE XII.—HOTEL DE VILLE, ANTWERP. This is the best example of a Renaissance town hall in Belgium, its central feature being a very successful combination of superposed orders, though, as a point of architectural criticism, it may be said that the columns would have had a better appearance if closer together, rather than as they are, each pair separated by a niche that serves no purpose. The sculptural figures are admirably introduced, and add a note of richness to the building. The building was erected in 1561-65 from designs by Cornelius de Vriendt. The façade is 265 ft. in length and 112 ft. in height for the main part, the central feature rising to 184 ft. The Virgin, the city's patron saint, occupies a niche in the centre, over the entrance of Antwerp, while to right and left are figures of Wisdom and Justice; and other figures of man, beast, and bird as terminals above.

PLATE XIII.—REIMS CATHEDRAL. This has been regarded as in many respects the

finest of all the French cathedrals, and the havoc wrought upon it by the Germans is on that account to be the more deplored. The great glory of Reims, apart from the magnificence of its structure, was in its sculpture and its glass. The west wall of the nave has storeyed rows of little statues in niches, while above is the great rose window. With reference to the authorship of the different parts of the cathedral the following from a recent paper by Professor Charles Gourlay may be quoted: "Jean d'Orbais furnished the plans for the whole building, carrying out the choir and probably the greater part of the transepts. His successor was Jean de Loup, who directed the works for sixteen years. He undertook part of the nave, and also the great western front, which was continued by Gaucher de Reims from 1250 to about 1260. Following him was Bernard de Soissons, who constructed the nave from the fifth to the ninth bay inclusive, and the great circular western window. It is known that Bernard continued to carry on the work till 1287, and that it was very soon after this date that Robert de Coucy, who died in 1311, became Master of Notre Dame, and to Robert are attributed the four western bays of the nave."

#### PLATE XIV.—SOUTH TRANSEPT OF SOISSONS CATHEDRAL.

Soissons Cathedral dates from the twelfth and the thirteenth centuries, and commands attention by reason of the mingling forms of Romanesque and Gothic which find such remarkable expression in its architecture. The south transept ends with an apse, and is surrounded by an ambulatory aisle, out of which, on the east side, opens an unusually large chapel. It is a noteworthy example of simple robust building.

#### PLATE XV.—THE PORTE DE PARIS, LILLE.

In this fine work, dating from the end of the seventeenth century, we see how the French attain a monumental effect with grace, whereas the Germans achieve only a domination by force and brutality. The Porte de Paris commemorates the taking of Lille by Louis XIV. in 1667, and is the work of a local architect, Simon Vallant. Originally it was a gateway in the encircling wall of the city. The triumph of the *Roi Soleil* is symbolised by the crowning group of Victory, while military emblems serve as appropriate sculptured reliefs on the two pylons on either side of the central arch.

#### PLATES XVI AND XVII.—PALAIS DE JUSTICE, BRUSSELS.

The Palais de Justice at Brussels is unquestionably the most remarkable building of its kind in Europe—a titanic conception carried out with astonishing skill. It was commenced from Poelaert's design in 1866 under the superintendence of Wellens, but was not completed until seventeen years later, the total expenditure having been £1,700,000. The area of the building is no less than 270,000 sq. ft.—nearly twice the size of St. Peter's at Rome, and more than three times the size of St. Paul's Cathedral. The main façade has two-storey wings connected by a double colonnade on either side of a huge central portal, approached by a flight of steps. Above rises a rectangular mass, which in turn supports a rotunda encircled with columns and embellished with colossal statues of Justice, Law, Strength, and Clemency; a small dome crowning the whole at a height of 340 ft. From the main portal steps lead up to the *Salle des Pas Perdus*, the figures at the foot of the stairs being of Demosthenes and Lycurgus on one side, and of Cicero and Ulpian on the other. There are twenty-seven large court-rooms for the supreme courts of Belgium and for the provincial civil and criminal courts of Brabant—the *Cour de Cassation* and the *Salle des Séances Solennelles*—chief among them—and 245 rooms for judges, officials, and others.



## BRUTALITY IN MODERN GERMAN ARCHITECTURE.

[SPECIALLY CONTRIBUTED BY MARTIN S. BRIGGS, A.R.I.B.A.]

WRITERS on architecture at the present time may be divided into two distinct and sometimes hostile camps. On the one hand there are certain authorities who deny that social, ethical, or religious conditions can be reflected in the form of a building; on the other hand an equally plausible section tracing the direct results of political health or decadence, of peace or war, in sculptured ornament or in mouldings. We are asked to avert our eyes from one church because it was built by a dissolute cardinal, to admire the proportions of a column because it once supported the ascetic holiness of St. Simon Stylites. Or we may be told that a period whose social conditions are corrupt is yet capable of producing the purest gems of art. The latter position has recently been reinforced by a brilliant recruit\* to the ranks of architectural critics, and it is probable that he is already speaking to the converted. The generation now knocking at the doors of our profession knows not Ruskin, or knows him only as a butt for witticism. We no longer call on the minor prophets to explain problems in æsthetics, and the evil spirit of the Renaissance has become positively attractive.

Yet, with all deference to this point of view, I propose to trace a direct connection between the now familiar militarist theories of modern German philosophers and some recent examples of German monumental architecture.

It appears to me to be still a moot question whether a warlike nation is more likely to produce great works of art than a community enjoying the blessings of peace and prosperity. It is difficult to understand how a hand hardened by wielding a bayonet or firing some mighty gun can readily turn to the gentler use of brush or chisel. When our young architects come back

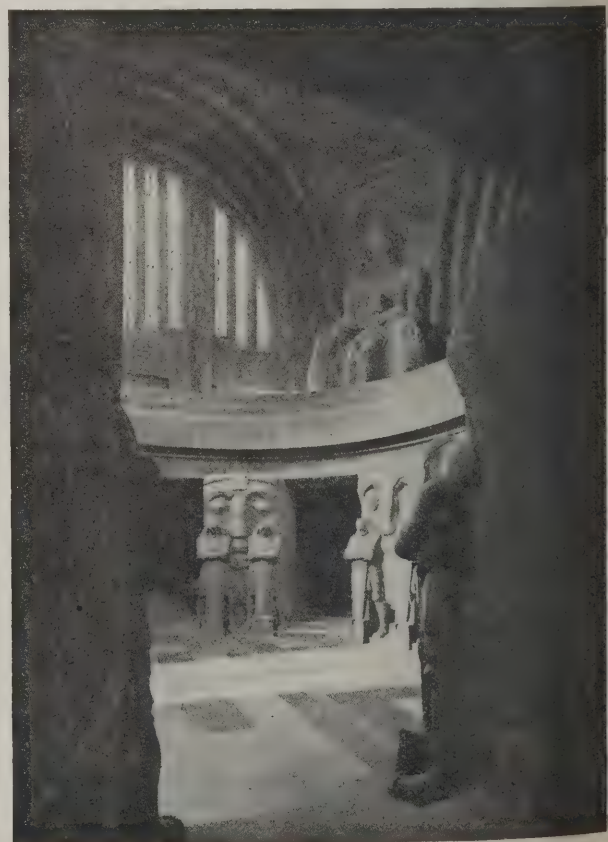
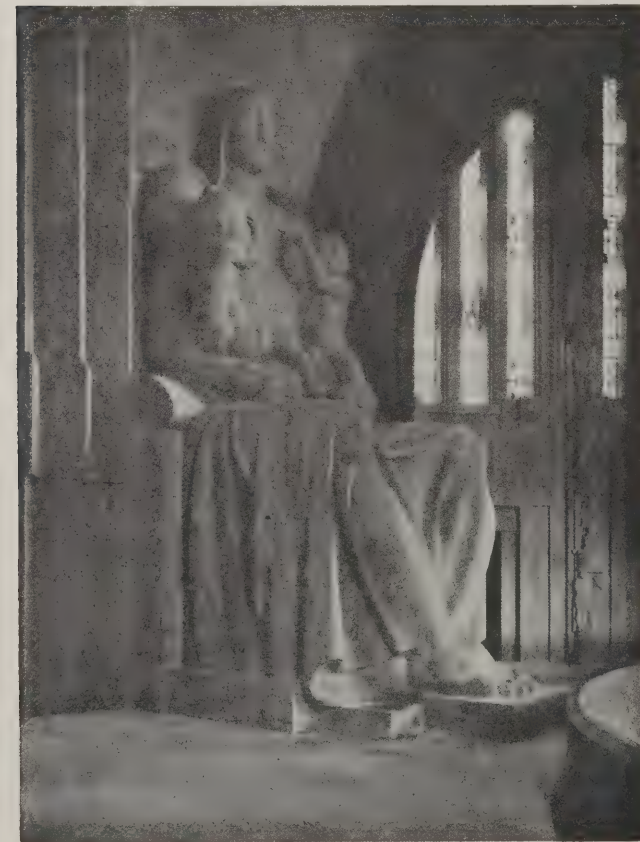
from the stricken fields of Flanders, their hearing dulled and their nerves shattered by the roar and shriek of shell-fire, their minds clouded with the memory of ruined churches and desolated homes, will they find it easy to resume their studies of line and form? Or will they be ennobled and uplifted by the sight of heroism, forgetting all the sordid horrors of battle, so that they have become new men, "purified by fire"?

These are the two aspects of war; on the one hand brutalising, on the other exalting. In his "Crown of Wild Olive" Ruskin upheld the latter. "All the pure and noble arts of peace," he wrote, "are founded on war; no great art ever yet rose on earth, but among a nation of soldiers." He instances the essential military character of life in Egypt and in Greece, put aside the Roman Empire (the most military of all) as an inconvenient exception to his rule, ignores the reputed decadence of Byzantium, and takes up his theory again in the Middle Ages. " . . . With Gothic chivalry there comes back into the mind of Europe a passionate delight in war itself, for the sake of war."

"And from this time forward, as peace is established or extended in Europe, the arts decline."

But this is not true, he says, of all war. Not of "the rage of a barbarian wolf-flock, as under Genghis or Suvarrow; nor the habitual restlessness and rapacity of mountaineers, as on the old borders of Scotland; nor the occasional struggle of a strong peaceful nation for its life. . . . ; nor the contest of merely ambitious nations for extent of power, as in the wars of France under Napoleon. . . ."

As Englishmen we may regard the present conflict as having begun as the second of the list, then reveal itself as the last, and finally developed into a revelation of barbarian rage well associated with the name



THE WAR MEMORIAL AT LEIPZIG: INTERIOR VIEWS. BRUNO SCHMITZ, ARCHITECT.

\* Mr. Geoffrey Scott, author of "The Architecture of Humanism."



eric. "None of these forms of war," says Ruskin, "is anything but tombs." It is those wars which are waged for the suppression of evil, or in the sacred defence of one's home and fatherland, that give rise to the noblest art.

At the great monuments with which I am now concerned are to be regarded not only as the work of a nation (for one may question whether the man is really a soldier at heart). It is more just to regard them as the embodiment of a philosophy shaped by unbalanced theorists, such as Treitschke and his illustrious forerunner, Nietzsche. Probably every reader of this article has formed his own judg-

For what may be called commemorative military art, the expression of the pomp and circumstance of war, need not necessarily be brutal or oppressive. The triumphal arches in Rome and her provincial capitals do not lack refinement more than other branches of Roman art. The victories of Louis XIV. are displayed in monumental fashion all over France, but there is nothing vulgar in such an example as the Porte de Paris at Lille.<sup>†</sup> The same may be said of Napoleon's architectural schemes, which, though grandiose, are always marked by the Classical taste of his day. A more modern instance is to be found in the monument to Vittorio Emanuele at Rome, the largest and in many



THE WAR MEMORIAL AT LEIPZIG. BRUNO SCHMITZ, ARCHITECT.

on the opinions of these now familiar writers will be sufficient for my purpose to define their doctrine as a worship of power, limited by the power of Imperial Germany. By Nietzsche implied the ability of the genius to command, and his object was to produce a race of "supermen" who would eventually control the world. His successor preached another type of power—the crushing, overbearing, ruthless authority of the state before which the individual was a negligible quantity. This, it seems to me, is the spirit inspiring the architecture shown by the accompanying illustrations.

respects the most remarkable of all kindred works. There has been much criticism directed against the disturbance of ancient buildings to provide the necessary site for this monument, some criticism, too, of the design itself. But on the whole it is in keeping with "the grandeur that was Rome," and all the details—sculptural and architectural—are of a delicate grace.

We can cite no instances from England, because this country possesses no real war-monuments worthy of mention, unless one regards Vanbrugh's pompous pile at Blenheim as such. Perhaps our temperament is

<sup>†</sup> Refer to Plate XV. in this issue.





KAISER WILLIAM MEMORIAL ON THE KYFFHÄUSER,  
THURINGIA. BRUNO SCHMITZ, ARCHITECT.

View looking through Arch of Courtyard showing seated Statue of  
Barbarossa.

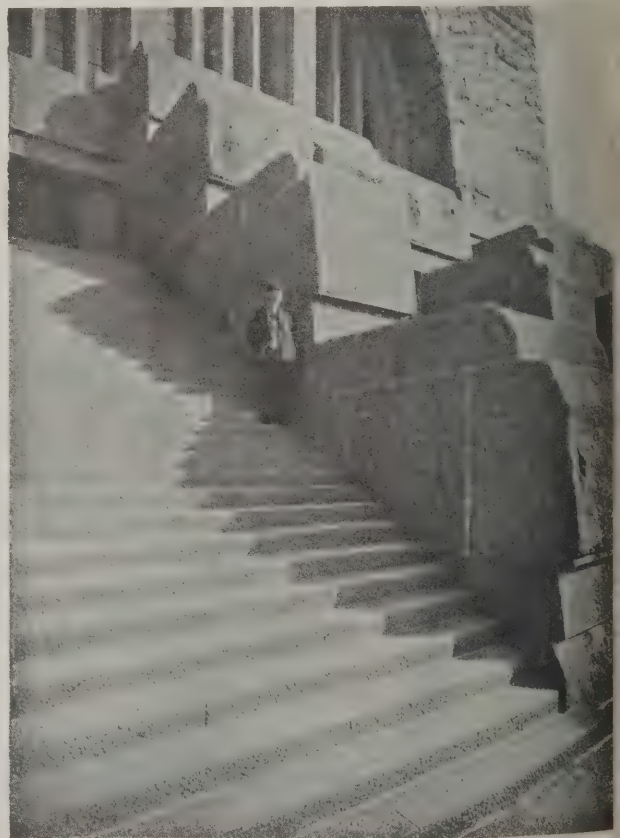
unfavourable to the material embodiment of military glory, too taciturn and not sufficiently imaginative.

But in Germany a new type of war-memorial has been evolved during the last twenty-five years. The country has been dotted with "veritable mastodons of masonry," and, curiously enough, these are almost all the product of one very fertile brain—Bruno Schmitz, who is perhaps the foremost living architect in the Empire. Born in 1858 and trained in Düsseldorf, he was only twenty-five years old when his design for the Vittorio Emanuele monument in Rome suddenly brought him fame. As it transpired, the final award left him only the second place, but his future reputation rests more on his subsequent efforts in the same field than on any other part of his enormous and varied practice. In some of his war-memorials he preserves his balance, as for instance the National Monuments to the Emperor William (1890) and Bismarck (1897) at Berlin, or that to the Emperor William at Halle (1896), but in others he displays that "brutality" which has suggested the title of the present article. Three of them may be grouped together, all being dedicated to that great Emperor who first united Germany when he crushed Austria and France between 1866 and 1871. All three were designs selected in competition (like the majority of Schmitz's works) in 1896-7, and all are magnificently situated. One stands on the Kyffhäuser in the Thuringian hills, another on the Porta Westfalica high above the Weser, the third at the junction of the Rhine and the Moselle at Coblenz. The first two especially are colossal landmarks, neither towers nor shrines, but simply lofty structures built of rugged masonry. They proclaim to the world at large, but more particularly to the German people, the crushing power of the military State.

It is, however, in the huge Völkerschlachtdenkmal on the level plain outside Leipzig that brutality is most obviously apparent. Here, where the hosts of

Napoleon were vanquished in a great battle in 1813, the militarists of modern Germany have raised a centenary memorial—a mammoth threat to France, a permanent embodiment of the "frightfulness" preached by Bernhardi. It possesses a quality known to the Italians as *terribilità*—that is, a power inspiring awe. But it is a feeling of repulsion rather than awe that strikes the beholder of the uncouth stone giants and horrible faces in the inner hall. For this creation Schmitz has borrowed many ideas from Egypt, but he has translated them into a nightmare. The masonry is cyclopean, and the apex stone of the whole structure is made to appear as one enormous block. The figures seated round the inner gallery are perhaps the most utterly gross ever produced in modern art. Their clumsy limbs are not even hewn from one stone, but are built up in horizontal course with perfectly visible joints. One hideous group appears to represent a mother with her children (see page 388); it is impossible, however, to imagine any more brutal caricature of maternity. It breathes a paganism never imagined by the Romans or even by the Egyptians.

The war monument at Leipzig is no memorial of the glory of war, but a testimony to the brutal strength of a military despotism that fears neither God nor man. It is a negation of every artistic tradition of the human race, the freak of a brilliant brain distorted by Treitschke and his kind. It is an insult to civilisation only possible in a nation like Germany. It explains why churches have been violated and why treaties have been torn up. It is in fact a brutal work, brutal in conception and brutal in its detail, brutal none the less because it has been erected by a great nation capable of great architectural designs and designed by a notable artist. In the illustration below may be seen a pathetic little figure of an artisan (perhaps a Socialist) standing on the steps in the shadow of the huge stone. Surely he typifies that great industrial nation, stifled and dominated by the Juggernaut of military power. Some day, it may be, we shall hear of him again.



WAR MEMORIAL, LEIPZIG: DETAIL OF BASE.  
BRUNO SCHMITZ, ARCHITECT.



## THE DESTRUCTION WROUGHT BY THE GERMANS.

the course of a few months, by bombardment. by incendiarism, by wanton destruction, the German Army has shattered the work of centuries, and, fully, one must perceive, there is yet more to be under a military direction that has no regard for historic heritage of the past, and displays a brutal ardor of the common feelings of humanity.

A list of places destroyed—in quiet hamlets, in towns, in towns and cities—is already a long one, and week adds to the appalling record. Louvain, Termonde, Malines, Arras, Dixmude, Ypres—are outstanding names associated with the most heinous acts, but scores of others, such as Visé, Dinant, serve to recall the complete destruction wrought in smaller places, which to-day present the spectacle of ruined streets, houses reduced to mangled heaps of brickwork and masonry, churches hewn through and through—their altars desecrated, walls thrown down, and the handicraft of the best craftsmen in wood, stone, and glass scattered in thousand fragments.

It is not possible here to give anything more than a brief indication of what has been done in the north of Belgium and of France, but it is fitting, in connection with the accompanying illustrations, that there should be some detailed record of the havoc

wrought by the Germans in Louvain, in Reims, in Termonde, in Arras, and in Ypres.

*The Destruction of Louvain.*

It was on Wednesday, August 18, that the German Army entered Louvain, after having burnt down the villages through which it had passed. At nightfall on August 26 German troops that had been repulsed by the Belgians rushed panic-stricken into Louvain. Several witnesses affirm that the German garrison which occupied the town was erroneously informed that the enemy were making an entry. Men of the garrison immediately marched to the station, shooting haphazard the while, and there met the incoming German troops, and the regiments fired on one another. At once the Germans began bombarding the town, pretending that civilians had fired on the troops. The bombardment lasted till about ten o'clock at night. The Germans then set fire to the town. Wherever the fire had not spread the German soldiers entered the houses and threw fire-grenades. The greater part of the town of Louvain was thus a prey to the flames, particularly the quarters of the upper town, comprising the modern buildings, the ancient Church of St. Pierre, and the University buildings, together with the University library, its manuscripts and collections.



*Photo: Newspaper Illustrations.*

VIEW OF GRAND' PLACE. LOUVAIN, SHOWING HOTEL DE VILLE AND CHURCH OF ST. PIERRE.



The fire burnt for several days. The final result is thus recorded by the "Central News": "The Rue de Bruxelles, from No. 71 onwards, and the Rue de Paris have been completely burned, as have the Rue de Malines, the Rue Courte, the Old Market, and the Rue des Poulets. The premises of the Table Ronde, opposite the Hotel de Ville, have been burned. The tower of the adjacent church of St. Pierre is still standing, but the rest has been destroyed. The Hotel de Ville itself is intact. The Rue de Tirlemont is burnt. In the Rue de la Station the Café des Brasseurs has been burned. The Rue de Liège is destroyed. The Place du Peuple is reduced to complete ruin. The Rue Vital Decoster is destroyed. The Place des Josephites is destroyed, but the college has suffered little. The statue of Juste Lipse in the Rue de la Gare is still standing. The Place de la Nation is completely destroyed. The Boulevard de Tirlemont has been destroyed on one side as far as No. 25, and from Nos. 20 to 148 everything has been destroyed. The Rue de Diest and the Chaussée de Diest have also been destroyed, as has the Rue de Bellevue. On the Boulevard de Jodoigne ten houses on one side have been destroyed; the other side is intact."

This was Louvain, an old-world town enshrining many a heritage of the past, now ruined by the hand

of the spoiler; a town whose town hall, pinnacled and fretted, stands foremost among the Gothic buildings of its kind in Belgium; whose cathedral church has witnessed the whole history of Flanders and of Brabant, and whose university has stood as a centre of learning for a whole nation.

#### *The Havoc at Reims.*

Turning next to the damage done by bombardment and fire to the great cathedral at Reims, we have available the careful record of Mr. Whitney Warren, member of the American Institute of Architects, and partner in the well-known firm of Warren and Wetmore. Mr. Warren, who was provided with special facilities by the French Government, says: "On September 4, when the Germans first entered Reims there was a bombardment of the cathedral by the guns, and four shells fell upon it—one on the north transept—but little damage was done. . . . On the 17th two bombs struck it, one on the apse, the other on the north transept. The cathedral was again hit on the next day, the shell falling on the southern flybuttresses and on the roof. The building was fairly riddled with shell during the entire day on September 19, and about four o'clock the scaffolding surrounding the north tower caught fire. The fire lasted for about



REIMS CATHEDRAL: DETAIL OF NORTH PORTAL, WEST FAÇADE.

Photo: Central Press.



our, and during that time two further bombs struck roof, setting it also on fire.

The fire from the scaffolding descended until it reached the north door of the main façade, which it rapidly, burned through, and communicated the fire to the straw covering the floor of the cathedral. Caught ablaze from the fire originating in the old, burning through the doors and destroying the wooden tambours or vestibules surrounding these in the interior, and also calcinating the extraordinary stone sculptures decorating the entire interior is western wall. These sculptures are peculiar to Reims, being in high full relief and cut out of the stone instead of being applied. The damage done to them is irreparable.

All the wonderful glass in the nave is absolutely destroyed; that of the apse still exists, though greatly aged.

The fire on the outside calcinated the greater part

but the vaults resisted and were not even perforated. Had the cathedral of Amiens received the same punishment, the vaults, owing to the lightness of their construction, would have given way and the flying buttresses would have crushed in the walls. Nothing would have remained but a mass of crumpled stone, with the exception, perhaps, of ruined towers."

Since Mr. Warren wrote his account, Reims Cathedral has suffered further bombardment, with what result it is not possible at the present moment to determine precisely; but the foregoing description of the earlier bombardment and fire is, when read in association with the accompanying detail of the west façade, sufficient to show what irreparable damage has been done at Reims: and in addition to the havoc at the Cathedral, great injury has been inflicted in different parts of the town, the Archbishop's Palace, with its wonderful *salle* on the first floor, having been entirely demolished, and severe damage done to the Hotel de Ville, the Museum, and other buildings.



GENERAL VIEW OF TERMONDE.

Photo: Newspaper Illustrations.

façade, the north tower, and the entire clerestory, the flying buttresses and the turret crowning each. This stone is irretrievably damaged and falls off when touched. Consequently all decorative sculpture, wherever the flame touched them, are lost. The tapestries for which Reims is renowned were entirely removed before the bombardment. Half the crucifixes and pictures in the apse are destroyed.

Nothing remains of the monument it is owing to its strong construction. The walls and vaults are of such stoness which can resist even modern engines of destruction, for on September 24, when the bombardment was resumed, three shells fell upon the cathedral,

Fortunately, the great Church of St. Remi would appear, so far, to have escaped injury.

#### *Ruined Termonde.*

Termonde, a town not far distant from Ghent, was savagely assaulted by the Germans, with the result that its Hotel de Ville, with a graceful old tower, has been entirely ruined; its two principal Churches of Notre Dame and St. Giles smashed in; and its streets of houses reduced to debris, out of which gaunt walls and charred roof timbers remain to indicate what was once a pleasant town of about 16,000 inhabitants.

Of the actual condition of Termonde to-day we have a record by Mr. J. H. Whitehouse, M.P., who, having paid a special visit to the place, says: "I found it entirely destroyed. I went through street after street,



square after square, and I found that every house was entirely destroyed with all its contents. It was not the result of a bombardment; it was systematic destruction. In each house a separate bomb had been placed, which had blown up the interior and had set fire to the contents. All that remained in every case were portions of the outer walls still constantly falling, and inside the cinders of the contents. Not a shred of furniture or of anything else remained. Sometimes my passage was barred by the fallen houses. This sight continued in street after street throughout the entire extent of what had been a considerable town. It had an indescribable influence upon the observer, which no printed description or even pictorial record

cathedral there was little chance of saving the latter. The town was quite deserted, and I do not suppose fifty people were watching the fire when we arrived. In addition, there were about seventy French who had got hold of a little manual fire-engine that was having no more effect than a watering pot. The French officer told us that the Germans had shelled the cathedral and the Cloth Hall in the morning with fire bombs. I had not seen these bombs, but I gather that they are shells which, instead of being filled with shrapnel, are charged with gas which burns furiously. There were no shells falling when we arrived, but the Cloth Hall was burning furiously. All the windows had been blown out by shell fire, although the building



Photo: Newspaper Illustrations

RUINS OF THE CLOTH HALL AND HÔTEL DE VILLE, YPRES (CATHEDRAL IN BACKGROUND).

could give. This influence was increased by the utter silence of the city, broken only by the sound of the guns."

#### *The Destruction of Ypres.*

Most recent of all the great acts of destruction wrought by the Germans is that of Ypres—now a ruined town, its famous Cloth Hall destroyed by fire, and its beautiful cathedral shattered and burnt. An English officer who visited the place during the course of the destruction writes: "When we arrived we found the Cloth Hall on fire, and as it practically adjoins the

itself was not touched except in one corner. We went inside and lent a hand in saving some of the statues and the town records, but after half an hour of this the roof began to fall in. The fire was helped by the fact that the whole place was surrounded by scaffolding. I learn that restoration work was, prior to the war, being carried out by a German firm. . . . About six o'clock the French had to give up their efforts to save the contents of the cathedral, and a few minutes later the roof fell in. Except for the walls I am afraid both the Cloth Hall and the cathedral are absolutely



There was a strong wind blowing, and the whole of the southern part of the town caught fire. It was a wonderful sight when it was fully ablaze."

Of Ypres as it remains to-day the following description is given by Mr. G. H. Perris, special correspondent of the "Daily Chronicle": "Ypres is, or was, a town of 18,000 inhabitants. Its unique historical and architectural interest was universally known. If ever a thought be given in war-time to the glorious memorials of the past, to the beauty that time has made and time has ripened, here was the reason for such a restraining thought. The officers of the Allies say that there is no military excuse for fifteen days' bombardment, and that, in any case, shrapnel would have been as effective as big shells (including incendiary shells), except for the purpose of destruction. What I saw for myself is, perhaps, more conclusive. It is that, while large parts of the town have suffered no injury, the famous Cloth Hall, the equally ancient, though less rare and beautiful, cathedral of St. Martin, are practically destroyed, with a number of the quaint old houses around them. Including the 'Nieuwerck,' a little two-storey building, dating from 1620, attached to the east end of the Cloth Hall, and containing the municipal offices. With comparatively short-distance firing, this result could be accidental. It stands as clearly against the German commanders as the less serious damage to St. Catharine's Cathedral and the destruction of Louvain. Here, as at Louvain, the injury to civilisation is irreparable. The high roof of the Halles has gone completely; its charred fragments strew the pavement of the pillared aisles which formed the ground floor of the vast building. The windows are all shattered, the diamond panes lying amid the heaps of brick and mortar within, and on the pavement outside. Of the 'Nieuwerck,' which was only slightly damaged by the German bombardment, nothing now remains standing. The delicate pinnacles at the corners of the Cloth Hall point up naked to the sky—strangely naked without their familiar background. But the fine arches and the long gallery have disappeared; and the remarkable wall paintings are hopelessly defaced. Standing inside but the pillars—poor skeletons—cry aloud for pity, like the pillars of Pompeii, or Propylæa on the Acropolis of Athens. The great central tower shows a huge rent in the upper part, where the clock was; and on both sides of the tower the façade has been smashed in. Opposite, a number of houses have been gutted, fragments only of the walls standing amid piles of rubble. On the other side lies the cathedral. We could not get inside, the entrance is blocked by a mound of still smoking mortar and stone, the top of which was lit by faint flame throwing out curious little sparks. This is the remains of the belfry. Of the interior we could only see that there was no longer a roof, and that the floor was a horrible chaos. . . . The station is naturally the first mark for the German guns; and the neighbouring square, houses, a large factory, and a school have been knocked to bits. But all this is nothing beside the loss of that which has been a joy and pride to good men for 600 years, and, having been demolished in a fortnight of frenzy, can now never be replaced."

A fine estimate of the Cloth Hall and its ancient treasures has been given by Mr. N. E. Monckton Jones, lately Tutor in Modern History at the University of Liverpool, who, writing to the "Observer," says of Ypres: "So far the town as we approached showed little of interest. We followed the first street without enthusiasm; a quaint old house here and there, older commonplace modern shop fronts. . . . In a sudden we were at the Place, and the Cloth Hall in all its full glory before us. It was not the size of the building nor its richness that halted us so much as its beauty. It was, I think, the arresting dignity of it, its beauty built up of fine and simple lines and the mellow

contentment of age. Many buildings in other towns were statelier, more ornate, more imposing, but from the pointed arcade below to the long line of the great roof the Hall told of a fine sense of proportion, of reserve. . . . The Cloth Hall expressed the self-respect of burghers who had won their rights two centuries before Magna Charta, and asked nothing more than to be left in peace to exercise their crafts. This well-wrought casket held unique treasures. A free town since the days of the Crusaders, Ypres had preserved in her Cloth Hall the accumulated records of nine centuries. It seemed almost incredible to us to find ourselves looking at the original papers signed by 'Le Roi Soleil,' by Alva or his Grand Inquisitors, by Charles the Bold and Philip the Fair; to see the great sheet of the Treaty between Edward III. and Van Artevelde, with its fringe of leaden seals hanging on the library wall, just as the citizens affixed them; and then to read the old parchment charters of the first privileges granted to the town. . . . With what just pride might the keeper of those archives point to the unbroken series of materials for his History of the Courts of Flanders, all compiled upon the very scene of action itself, where they had lain ever since, while the troops of half the nations of Europe came and went at their gates. Roused by our interest, he took us to a store-room piled from floor to ceiling with a mass of documents, not half of which he had been able even to look through and classify, and, with tears in his voice, he lamented that he had not funds or assistants to deal with them, and told his fear that they might be carried off to the national archives at Brussels. How much worse a fate was in store! Truly, the Overlords of Kultur need nothing more to prove their title to the world's reverence than the fact that out of wanton malice they fired so unique a holocaust as the Cloth Hall and the archives of the free town of Ypres."

#### *The Bombardment of Arras.*

The town of Arras, in the north-west corner of France, has suffered grievously, having been bombarded by the Germans first in September and later, for ten days, in November. This historic and beautiful old town, says Mr. Maconochie, special correspondent of the "Daily Chronicle," is now devastated. "The Petite Place and the Grand Place, which are united by the broad Rue de la Tuilerie, are simply a wilderness. These squares were surrounded by houses having arcades on the ground floor, supported by huge sandstone pillars, while curious gables were to be seen above, the whole atmosphere of the place reminding one rather of Spain than of France. Now, if one can imagine these houses all smashed up and one side of the Grand Place practically levelled to the ground, the great sandstone pillars lying higgledy-piggledy among the debris, great holes, big enough to engulf a wagon, open in the pavé, smoke showing, curling up from one corner where a few days ago a blazing fire flamed furiously, and a few decrepit old women and men poking about with sticks among the ruins, some idea will be gained of what a town is like after a bombardment. Absolute desolation apparently reigns supreme. . . . The crowning crime is the destruction of the Hôtel de Ville, the belfry of which is smashed beyond repair, as is one of the finest bells ever cast—the date upon it was 1728, and it weighed nine tons. . . . The cathedral is also very badly damaged, and the Musée—an extensive series of buildings which in former days constituted the Abbey of St. Vaast—has suffered very much, its beautiful garden, with numerous bronze busts of eminent citizens of Arras, being strewn with debris."

And thus the record proceeds—a record of colossal destruction which, alas, has not yet run its whole course. The ruin of all these ancient buildings staggers the senses. But it stirs also the soul towards the coming day—a day of terrible retribution for Germany.



## WAR AND ARCHITECTURE.\*

BY R. BURNS DICK, F.R.I.B.A.

IT has been said that the history of civilisation is largely the history of a few great cities. It might with equal truth be said that the history of these cities is a history of war. As architecture is bound up in the history of cities, it follows that architecture and war are closely associated. We have ample evidence in all ages of the destructiveness of war, of the losses inflicted upon the building arts, but have we ever paused to think of the immense influence that War has had upon the extent and character of the architecture of the past?

*The Record of Egypt, Assyria, and Persia.*

Instinctively the mind leaps back to the Nile; we see through a veil a confused picture of huge temples, pyramids, and obelisks, and we try to penetrate the mystery enshrouding them. There, over a relatively very long period, a really great civilisation endured—endured, it might be argued, for so long and reached so high a pinnacle of achievement, just because by reason of its unique geographical position it was less subject than the other great nations have been to hostile attack or desire for conquest. This point is worth consideration, though in the absence of authentic records, and judging from historical analogy, we cannot immediately accept such a conclusion. That War was not absent there is no doubt, for in one of the most recent histories we may read that: "In the middle epoch of Egyptian history the desire for foreign conquest shows itself, and we find Nubia becoming an Egyptian province and the gold of its desert thence belonging to the Pharaohs"; also, that "The Golden Age for the temples began with the Asiatic campaigns of the eighteenth dynasty." Think of these mighty structures and the colossal tombs reared by hordes of subjugated fellow-beings, and ask yourself whether War plays any part in their creation.

Turn to the bygone civilisations of Babylon and Assyria and let your thoughts be stirred by the wonderful story of such cities as Nimroud, Khorsabad, and Nineveh, only now, after three millenniums, being slowly unfolded, and if the archaeologist tells us of their wonders, he just as surely tells of the cruel conquests that built them up and the merciless invasions that finally reduced their greatness to nothing but a tradition. The matter-of-fact historian summarises this epoch by the succinct statement that "the success of Assyria was due to her military organisation." So, again, Persia on the success of her conquest of Assyria builds up an Empire whose magnificent architecture is shown by the great hall of Xerxes and other buildings at Persepolis—all founded on the military achievements of Cyrus and his successors.

But whilst, especially in Egypt, these bygone civilisations have left their impress upon our present-day life, their architecture has not so directly influenced ours. Let us therefore leave these and look more closely at the two great civilisations of the past whose arts, as almost everything else, have most profoundly influenced us—the

Greek and Roman. Their arts are inextricably bound up in War and conquest, but we do not, as a rule, when studying and admiring their wonderful architectural achievements, give a thought to the part that their success in the art of War has played in the glory with which their monuments have endowed them. This is perhaps more especially so in the case of Greece. With Rome we can hardly escape from the truculent bludgeoning of all who stood in her path. Roman "culture" has been so widely hurled that we can see its effects even now at our very feet after the lapse of two thousand years. But with Hellenic Art our thoughts are not so tumultuously stirred, our mental vision is not drawn hither and thither from one stupendous creation to another, east and west; following the tramp of Rome's invincible cohorts with the "official" architect in their train. When Greece is mentioned strife seems immediately stilled, and we conjure up a single picture; we see through the softening veil of Time a single craggy eminence bathed in brilliant sunshine and bearing aloft on its plateau those wonderful creations in scintillating marble that have roused the admiration and stirred the emotions of all subsequent civilised peoples. We see in imagination the city of Pericles, brilliant in its pride of power and beauty and wealth, lying beneath the shadow of the Acropolis, reaching upwards its gorgeous processional way to receive the blessing and protection of its patron goddess, Athena.

Everyone who comes under the spell of the story of

*The Golden Age in Athens*

is moved in a different way, according to his individual predilections. For the statesman and orator the central figure is, of course, the democratic Pericles, greater than King; for the student and philosopher it is Socrates, but for the artist and architect the supreme gods of Athens are Phidias and Ictinus. If we talk of Greece it is Athens we see, and if our thoughts are directed to the works of other Grecian cities and colonies, such monuments appear to us like children strayed from the care of an almost over-prolific mother. For the student of our art, no other architectural period in history crystallises itself into one such vivid, clearly-defined vision as springs before his mind's eye in the sun-bathed Acropolis at the thought or mention of Greece. No thought of the fierceness and noise of War intrudes in this picture: it is a combination of the arts of Peace never elsewhere equalled. Egypt crushes us and disturbs with its air of false mystery, Assyria is a blurred picture of despotism, Rome whirls us off our feet and leaves us gasping, Byzantium makes us dizzy with its daring, the Middle Ages hold us breathless as at the struggles of a captive soul to break its bonds and soar aloft on the pinnacles and towers of those triumphs of Gothic art; the Renaissance, like a giant looking round for some inspiration to bring into play his newly awakened energy, still attracts us by a mixture of curiosity, doubt, admiration, and impatience; Greece alone calms all tumult and gives content to the spirit.

But let us take our eyes for a moment from this picture of perfection and look at the pigments with which the Master

Painter has produced it. Let us take the cold facts of history, and what do we find underlying the brilliancy of the Golden Age? War! What was the secret of Athens' greatness?—her Army, her Navy. Not, it must be admitted, the secret of her genius, but nevertheless the nourishment without which the tree would never have blossomed with the luxuriance of the Persian clean age.

Persian lust of conquest made possible the Golden Age in Athens. In 490 B.C. her fate seemed sealed, for was not Darius about to extend his kingdom westward walking over Athens' "contemptible little army" en route? But a surprise awaited him on the plains of Marathon. He recoils to recover himself while Athena collects the spoils of victory, and thence forth a new era dawns for her; literature and the arts revive. Darius does not live to punish her insolence, and for ten years she is allowed to prepare for his successor's inevitable onslaught.

Xerxes, with an enormous army, prepares for the conquest of Europe, commencing with Greece. To us, living at the present day in the midst of War, there is something strangely familiar about him as witness his address to the princes of Persia: "You will remember, O Persians, that I am not about to execute any new project of my own; I only pursue the path marked out for me. A deity is our guide and auspiciously conducts us to prosperity. It must be unnecessary to relate the exploits of my forefathers. For my own part, ever since my accession to the throne it has been my careful endeavour to uphold the Persian power undiminished. My deliberations on this matter have presented me with a prospect full of glory; they have pointed out to me a region not inferior to our own in extent and far exceeding it in fertility, which incitements are further promoted by the expectation of honourable revenge. I have resolved, by throwing a bridge over the Hellespont, to lead my forces into Athens and inflict vengeance for the injuries offered to Persia. Considering what is due to Darius and to Persia, it is my determination not to remit my exertions till Athens shall be taken and burned. If we reduce our neighbours, the Persian Empire will be limited by the heavens alone; the sun will illuminate no country contiguous to ours. I shall overrun Europe and possess unlimited dominion. There exists no race of men, nor can any city or nation be found which, if these be reduced, can possibly resist our arms," and so on. Change the Hellespont for another streak of water and substitute Western for Eastern name, and you have annihilated time; Xerxes and his hosts are reincarnated.

The invincible foe strikes. You know the amazing story: the destruction of Athens but the swift and decisive revenge taken by her gallant little navy against the cumbersome might of the Persian Armada. Persia's hope of world power is for ever quenched. The impossible has happened and Athens emerges as the guardian city of all Hellas with a subsidy from her Grecian Allies to maintain a fleet for the common protection. Bursting coffers and a prodigal outlay result, and she sets to work to make herself supreme in visible splendour. The brilliant conceptions of Pericles materialise under the unrivalled

\* From a presidential address delivered before the Northern Architectural Association. (Mr. Burns Dick is now with his regiment, the Tynemouth Royal Garrison Artillery.)



of Phidias, and under the sceptre and wing of Minerva, the Goddess of War, the inherent genius of the Greek people grew to a god-like stature, and gave us the marvellous expression of creative power whose radiance encircles the globe and makes earth a second Saturn.

#### *Alexander and Alexandria.*

But if the Hellenic spirit survives, like light still reaching us from a long dead Hellas that breathed it forth succubus and a new star, in the Macedonian Alexander, catches the glow from dying Greece. Possessing the martial spirit of Achilles and a burning enthusiasm for the heroic age of Homer fostered in the school of Aristotle, Alexander the Great dominates by force his greater neighbour, and makes himself a Greek. Then, with unbounded optimism of youth, brilliant in mind and supreme as a military leader, he starts on his world conquest. Living in his belief in the greatness of Greek culture, if his ambition is to extend dominion to the limits of the world, he is none the less imbued with the idea of giving all the conquered races partakers in that superiority which the title of Greek implied. If he destroyed great cities, like Babylon and Susa, and subjugated at the point of the sword Persians, Indians, Egyptians, and all who stood in his way, he founded many cities, one at least of which has laid under tribute all the subsequent European States—Alexandria, for was the real centre from which radiated throughout the world the Arts and Philosophy of Athens.

He the modern emulator of Alexander, who bases his operations on the carefully prepared and swiftly striking strategy of the Macedonian Greek, adopting also the destructive and ruthless methods, differs from his prototype in that his brand of culture is inferior to that which he professes to supplant. Great as was the Persian Empire, life in its cities was become rotten through luxury, despotism, and decadence, and probably Alexander unconsciously did no bad thing when he perished by fire and sword to do their work. The conquest of Persia released forces which have led to progress and which modern civilisation would have held in its wavering and unyielding grip. Alexander, on a wave of War, perished on the slopes of the Mediterranean the beautiful city of Alexandria.

#### *The Rise of Rome.*

Peace disappears, and now Rome and Carthage are at death grips. Both have developed great power by might of arms, Carthage appears to have been essentially a nation immersed in trade, keen for wealth, and though by aid of the military genius of Hannibal and Hamilcar she failed to the limit the might of her rival, she produced no art or literature that left lasting influence on civilisation. She was not the seeds of empire in her, great were her conquests, and in her long struggle against Rome she meets her match. Carthage at last is sacked and utterly destroyed, Rome exacts an enormous indemnity and sells her inhabitants into slavery. Rome is supreme. It would appear abundantly evident that these two great rival Powers, growing side by side, civilisation had infinitely more to gain from Rome than from Carthage. The latter city was equally in a position with Rome to profit by contact with the centres of Greek culture on the Mediterranean and to disseminate it throughout her increasing dominions, but she appears to have seen in the advanced

culture of her Eastern neighbours with whom she traded were the products of their civilisation, capable of being treated as merchandise. If she brought many books from the seats of learning, it was that she might vend them as wares for those who fancied such products. Had Hannibal overcome Rome after his marvellous march from Spain to Northern Italy, the whole of Southern Europe would have been added to the Carthaginian Empire, and most certainly, instead of the wonderful epochs which succeeded the supremacy of Rome, so rich for us in monuments of Man's constructive genius, a long period of stagnation if not of reaction in Art and Literature would have ensued. But for the power of Rome by might of arms to impose her will on the known world, we would never have known those indelible chapters in architectural history, the reading and study of which mould the minds responsible for the outward form of our present-day cities: Imperial Rome, Byzantium, Mediæval Europe, Renaissance Italy and France. If Rome wined out a great city like Carthage she gave posterity ample compensation.

But in Rome, as elsewhere, we cannot escape from perpetual conflict; if she is not waging wars of defence or aggression on her borders, she appears to be ever in a state of internal ferment.

Need one say anything about the conquest of Greece by Rome, with its effects on the arts of the Romans? The military activities and rivalries of Cæsar and Pompey, and of Augustus and Antony—all leading up to the Golden Age in Rome ushered in by Augustus, Emperor, some thirty years before our era?—Augustus the transmuter of Republican brick into the marble of Imperial Rome. Peace arrives, the first for 200 years. So great is the joy that thanks are conveyed for this new fortune by the erection of temples and altars to the glory of the Imperial Peace. But what is this peace? Of the eleven Emperors included in the first century and a quarter of the Empire, eight met with violent deaths. As a matter of fact, the Emperor's power rested on the Army, he being but its nominee, and Rome's position as mistress of the world was due solely to her legions. The first century of the Empire is a military despotism, and whence think ye comes the wealth to burnish this hub of the wheel of empire if not by way of the famous Roman roads which are as the supporting spokes? Listen to the historian: "The bounds of the Empire extend from the Euphrates to the westernmost promontory of Spain and from Egypt to Britain. About this territory is drawn an impregnable cordon of soldiers. Almost four hundred thousand men make up these legions. Remove that barrier and the Empire of Rome would shrink in a day from its world-wide boundaries to the little peninsula of Italy, if not to the narrow confines of the City of Rome itself. And why should it not be removed? What matters it to the citizen of Rome that his name should be a word of terror to the uttermost nations of the ancient world? It matters everything, for these outlying provinces supply the life's blood of the Empire. From these wide dominions all roads, as the saying has it, lead to Rome, and every road is worn deep with the weight of tribute. In the time of Augustus it is estimated that the yearly tribute from the provinces amounted to from fifteen to twenty millions of pounds. This was tribute proper, the literal price of Peace, but, in addition, Rome was the world emporium, and all transactions of the market had to pay

a percentage for excise. Rome might well be a glorious city, with her renovated Forum, her new Capitol, her triumphal arches, her stupendous Coliseum: she is, indeed, a city of marvels."

The subject is inexhaustible—wherever the legions of Rome are found there is seen the evidence of her skill in architecture and engineering. But we must jump the centuries of her gradual downfall, glancing as we go at that last manifestation of her greatness, when she gathered together her waning forces in one supreme effort before sinking back exhausted and dismembered, and gave to the world the re-born Byzantium, with its Eastern Roman arts, culminating in Santa Sophia; this at a time when Western Europe was entering upon the Middle Ages.

#### *Constantinople.*

How does Constantinople achieve its greatness? Why does the Emperor who gives the city his name desert Rome and set up his capital here? Was it because he had turned Christian and wished to free his Empire from the still potent influence of the pagan atmosphere of Rome? Rather was it a feeling of insecurity in view of the danger from the increasingly active Goths, and the wisdom and foresight to see that the City of the Golden Horn meant, by its unequalled position, the retention of his still great Empire. But for the warring instincts of barbarian hordes, Constantinople as we know it would not have come into existence. Another city like Rome, built on seven hills and rivaling in pretension its great prototype, it gave birth, by a fusion of Eastern and Western antiquity, to the great civilisation to which we are indebted for that architectural wonder—Santa Sophia. At the smallest computation this work cost £1,000,000, and it owes its existence to the warlike and rapacious Justinian.

And what of the Saracenic civilisation rising from the fanatical attacks on all unbelievers by the Prophet of Allah in the sixteenth century? Can we not trace that wonderful chapter of high attainment to the spreading of Moorish culture at the point of the sword? Can we not see behind that feast of glowing colour, and lying in the shadows of that sensuous architecture typified in the Alhambra, the blood and wealth of conquered unbelievers? But if this tide of conquest and culture flowed over from the shores of Africa into Spain, as did that of Carthage before it, it failed to force the barrier of the Franks in Gaul, or who knows what might have been the course of our art in the Middle Ages? Something brilliant, no doubt, but not finer than the Christian Church has left us.

#### *Architecture and the Mediæval Wars.*

And can we dissociate those glorious monuments of feudal and Papal times from the clash of arms? How much do we owe of that religious exaltation out of which soared those towers of Chartres, Beaulieu, Vendôme, to the wars on the Saracens for the conquest of Jerusalem? Had the Crusaders nothing to do with the intense fervour of spirit which sought to give itself utterance in shrines worthy of that Saviour for whom they fought and who had entered into the lives of the people, a very beacon to lighten the gloom in which they struggled? Peace: where was the peace for those millions under the feudal yoke? Only in the spirit created by the desire to escape from conditions where there was no Peace. And that groping yet soaring spirit we see



materialised in the great structures of the Middle Ages—war and servitude at the root.

Then take the cities of the Hansa League which grew up all over the North of Europe. Was not the very idea of living together in these communities, and surrounding themselves by walls, due to the greater security that could thus be obtained from the attacks from the Eastern barbarians? Architecture and the arts in Germany could hardly have existed otherwise in the Middle Ages. "But," you ask, "if there had been no War from the East, would there not have been, with the absence of fear and uncertainty, a greater development of the arts of Peace?" No, for a scattered pastoral people could never have done what this great confederation achieved by combined effort and the wealth of commerce which ensued—the direct result of city life.

#### *The Italian Cities.*

Again, what is the story of the wonderful cities of Italy, growing up at the same time? We have heard much lately about the modern Huns and their pinchbeck Attila, but who would think of associating their prototypes with the foundation of that wonderful city, the Queen of the Adriatic? Yet, but for these fierce ravaging hordes from the North of Europe in the fourth century it is extremely unlikely that any such city would ever have existed. When the destroying and conquering Huns were at last held up, and defeated on the very site between the Marne and the Aisne whereon their modern descendants were so recently beaten back, they escaped across the Alps into Northern Italy. There the peaceful inhabitants fled before them, part taking refuge on those sea-girt islands where still stands that once all-powerful city of Venice, so rich in interest for the architect. War gives her birth; War is the means by which her power reached so high a pinnacle.

Florence, Pisa, Genoa, and all the others, where can we find a greater output of the arts? True it is they are associated with peaceful commerce and contact with each other and distant centres of industry and learning. But how the flame is fanned by the breath of strife. Recall Benvenuto Cellini and the hot pulsation of battle that coursed through the veins of him and his contemporaries, now moribund and only waiting to be galvanised into life again by—what? And what a spurt and fillip is given to the Renaissance by the thrusting spears of the Moslems. The imminent fall of Constantinople, threatened by the Turks, let loose a flood of learning which poured into the West; scholars and artists flying into Italy, and so, like a forced blast, fanning the flame of awakening interest in Classic lore and art.

Open Mr. Ward's excellent work on the French Renaissance, and you immediately plunge into the Italian campaigns of the French Kings Charles VIII. and François I., as a necessary prelude to the opening of the sluice gates of Italian culture—War and Architecture going hand in hand.

And so the tale goes on, inexhaustible in its fascination and volume.

#### *The Present Position.*

Let us consider our own position in regard to this matter. Let us lift the mind's eye from the year 1914 and endeavour to see these present events as but an incident in the march of Man's destiny.

A period of growth, always with a strong military accompaniment, leading to a great crisis, appears to have been an outstanding characteristic of great nations. And

only when this crisis is safely past do we see appear the Golden Age with which a distinctive style of architecture is associated.

History never quite repeats itself, yet when we find two sets of conditions, however widely separated in time, approximating to one another, we may expect the outcome of these respective conditions to have something in common. Now, in taking our backward glance through time, the vision is irresistibly arrested by a struggle which strikes one as bearing a strong resemblance to the present conflict: Rome and Carthage have reached a crisis in their fortunes; the fate of one or other is about to be sealed for ever. The two can no longer exist side by side. To-day I seem to see the same tragedy being restaged, with Britain in the rôle played by Rome; the same fierce contest for mastery over a foe so redoubtable that the result trembles in the balance. Up till then Rome's title to a supreme place in history had not been earned; it was only after the final destruction of her only serious rival that there dawned the brilliancy of the Golden Age of Augustus.

Britain's fate is now in the balance. Like Rome, she has been growing, imitative in the Arts rather than creative, but, like Rome, her foe overcome, as assuredly will be the case, I see her marching to her Golden Age, and the architecture of Imperial Britain will flame out for the wonder and guidance of future ages. But before she can enter into her heritage she must be strong, and face with fortitude the fierce but cleansing fires into which her mighty destiny is carrying her.

Though beautiful buildings that have stood the test of time are crashing to earth and disappearing for ever under the blows of War, this is no time for bemoaning their fate or studying the art of building anew: fine monuments and great cities in the past have been entirely obliterated and may be again, but never has there been a crisis so momentous as that now confronting us. It is not the loss of a few delicately worked fabrics of stone; it is the threatened destruction of the mightiest construction yet achieved by man—the fabric of the British Empire.

Let me appeal, then, to those whom this will reach, who are eligible, to put into effect those qualities of devotion and courage and patriotism which I am sure is latent in theirs as in all blood that courses through a Briton's veins.

#### TOWN-PLANNING SCHEMES.

A voluminous report has been issued by the Local Government Board concerning the administration, during the year ended on March 31 last, of the Acts relating to the housing of the working classes and town-planning. In regard to the latter, the Board had given authority up to the end of March for the preparation and adoption of fifty-six schemes by forty-two local authorities, embracing a total area of more than 90,000 acres. In five of these cases schemes were subsequently submitted for the Board's approval. Two of the five schemes were prepared by the Corporation of Birmingham, and the other three by the Corporation of Rochdale and the District Councils of Ruislip, Northwood, and North Bromsgrove. Among the local authorities which were authorised to prepare schemes during the year under review were those of Carshalton, Ham, Richmond, Leeds, Liverpool, Sheffield, and Stockport.

## SPECIAL LEGAL REPORTS

### Contract Builders' Extras: Important Judgment.

*Dakins and Co. v. Lee.*

December 16. King's Bench Division. Before Justice Ridley and Sankey.

This was an appeal by Messrs. Dakins and Co., Ltd., builders, of Putney, from a award of Mr. Muir Mackenzie, the official referee in a claim against Mrs. Kate H. Lee, of Wimbledon Park Road, Wimbledon, under a building contract, to recover the sum of £352 odd, the balance of the price of work done and materials supplied in connection with repairs of the defendant's house.

Mr. Muir Mackenzie, in his judgment said the plaintiffs claimed that they were entitled to the contract price, together with the price of extra work, and the defence was that the defendant was under no liability to pay for deviations or for work not ordered. The plaintiffs contended that they were entitled to charge extra for labour and materials outside the price list but that was not so. He did not think the contract had been fulfilled, as the defendant had been given something other than that for which she was liable to pay.

From this judgment Messrs. Dakins appealed.

Mr. J. Bromley Eames argued the case for Messrs. Dakins, and Mr. Cassells for Mr. O'Malley appeared for respondent.

Mr. Justice Ridley, at the close of the arguments, asked whether the parties could agree upon the sum to be paid.

Counsel were unable to agree.

Mr. Justice Ridley, in giving his judgment, said that both he and his brother judge were clearly of opinion that the decision of the Official Referee could not be supported. The work done under the contract was accepted by the lady, who paid £250 on account of it, but declined to pay the balance. No one denied that the house was substantially complete although one or two things in it were not what they should be. It could not be said that the proper decision was to say that because some little matters had not been completed according to contract the person was to have the house for nothing. I did not believe that was the law; if it were this case would, upon the decision of the Referee, work a gross injustice. The authorities were clear and distinct that where a contract was substantially completed those who received the benefit of the work must pay. In this case it could not be contended that the work was useless, and there was no evidence which entitled a judge to find that the contract had not been executed, although there were some small details which it was necessary to put right. The decision of the Referee must therefore be reversed. The Court would be loth to order a new trial in the case, which had occupied nine days of trying, and for that reason he had suggested an agreement as to the amount payable. The appeal must be allowed and judgment entered for the plaintiffs for £242 10s.

Mr. Justice Sankey concurred, observing that he would be very sorry if there were to be a new trial, as it would mean ruin one if not to both of the parties.

Mr. O'Malley asked for a stay of execution with a view to appeal.

Mr. Justice Ridley: No. I do not wish to encourage you to go on with this case.

The appeal was allowed and judgment entered for the appellants, with costs.



## NEWS ITEMS.

*Presentation to a Soldier President.*

Liverpool Architectural Society have presented a sword to Mr. Gilbert Fraser, a lieutenant in the 1st Battalion King's Liverpool Regiment, in recognition of his valuable services to the

*Restoration of an old Lancashire Church.*

The ancient parish church of St. Andrew, Cockerham, has, with the exception of the historic beacon tower, been completely rebuilt, at a cost of £5,000. Messrs. Austin and Paley were the architects.

*Efforts for Connections between House Drains and Sewers.*

Reputation from the Cardiff Builders' Association have endeavoured to induce the Works Committee to waive the provision now made for making a connection between the drains of new houses and the sewers, to which they object not so much on account of the amount as of the principle. The Committee, however, adheres to the charge.

*Relief for the Professional Classes.*

A booklet has just been issued dealing with the admirable scheme of Professional Classes War Relief for finding employment and relief to members of the professional classes who suffer distress on account of the War. The R.I.B.A., the Institution of Civil Engineers, and the Surveyors' Institution are the societies represented on the committee. All communications should be sent to the hon. secretaries at 13 and 15 Prince's Gate, London, S.W.

*A New Diary.*

Among the first of the 1915 diaries to go to hand is that sent out by Messrs. Ward Brothers and Eckstein, Ltd. of a larger size than last year's, but with the interleaving blotter. Its format affords ample room for entries each day of the year, and there are included nearly a hundred pages of illustrative matter descriptive of the firm's ties, with instructions that facilitate writing, and guides to cost. A calendar of vital information complete the diary.

*Statues from Westminster Hall.*

The Library Committee of the Corporation at a recent meeting presented a report to the Court of Common Council with reference to the offer of the Government of the statues from Westminster Hall. The report stated that, with the approval of the Works Committee, the statues had been offered by the committee to, and had been accepted by, the Crystal Palace trustees on a loan.—Mr. Deputy Ellis said there was no place in the Guildhall to accommodate these enormous pieces of statuary, and the Crystal Palace was an appropriate destination for them.—After some discussion the matter was referred back to the Library Committee to consult the City Lands Committee as to the disposal of the statues.

*Sanitation in Practice in School Sanitation.*

An American Architect, dealing with the subject of school sanitation, says that the practice in New York City in regard to the number of "toilet fixtures" per class is based on the number of pupils in the school, provision being made for one

closet for every sixty boys, one urinal for every thirty boys, and one closet for every thirty girls. Large main "toilet rooms" for the boys and girls are provided in the basement or on the ground floor of the New York City schools, situated at different ends of the building, and amply provided with light and ventilation; extra accommodation being provided on one of the upper floors. In Chicago in the more recent school buildings, that is, those built during the past four years, the "tower" system is installed, which provides for closets for pupils on each floor.

*The Outlook in the Building Trade.*

At the recent annual meeting of the Hull Master Builders' Association reference was made to the outlook in the building trade. The annual report stated that possibly no industry in the country was so prone to be affected by any quickening or slackening of the national pulse as the building trade. Simultaneously with the outbreak of hostilities a rapid advance in the price of principal materials took place, and an element of panic was exhibited by both merchants and builders. The feeling had, however, now given place to a more settled condition of affairs, and while there was an appreciable advance in the cost of building, and a probable shortage in supplies of material, it was not such as to justify owners in withholding contracts or closing down existing work.

*An Adam House in the Strand.*

In connection with the Strand widening scheme, the London County Council has acquired Nos. 55 to 60. No. 59 was formerly the site of Coutts's Bank, and was built by the brothers Adam in 1768. There is a story that in the planning of the Adelphi, the Adams deferred to Mr. Thomas Coutts's wishes that his view of the Surrey Hills should not be obscured, and that Robert Street, which leads into Adelphi Terrace, was so placed that the windows of his house still looked over the river. The old house, with its historic vaults, is described in Cunningham's "Handbook to London" as having "some good marble chimney-pieces of the Cipriani and Bacon School," and a dining-room "hung with Chinese subjects on paper." The area was also the site of the "New Exchange," a famous rendezvous of the Restoration period. One by one the old houses of the Strand have to make way for new buildings: soon they will all have disappeared.

*Capturing German Trade.*

At the recent annual meeting of the Leeds Fireclay Co., Ltd., the chairman, Alderman C. F. F. Spencer, said that the War had naturally caused a considerable falling off in the building trade, and the sales of the company as a consequence during the last two months had decreased. But it was not to be forgotten that they did not depend entirely on the building trade. They had other branches of industry, and in these specialties they had secured and hoped still to secure a fair share of the work. Dealing with German competition, and the effect of the war on this, Mr. Spencer said the directors had not neglected the lesson of German methods. He believed that with the financial resources at their command, they would be ready when the building boom came at the end of the war to cope with the demands that would ensue. They were engaged now upon certain promising experiments, and they hoped, with the exclusion of Germany from certain markets, to be able to look to new branches of industry as a useful auxiliary to present spheres of activity.

## PROJECTED NEW WORKS.

*Offices, Shipley.*

The Shipley Council are considering the erection of new public offices estimated to cost £14,300, including furnishing.

*Cottages, Totnes.*

Totnes Town Council have passed plans for fourteen new cottages to be built on the Steart estate.

*Housing, Brecon.*

The Local Government Board have desired the Brecon Town Council to immediately submit proposals for erecting more houses for the working classes.

*Alterations, Birmingham.*

The Sites and Buildings Committee have been requested by the Birmingham Education Committee to prepare schemes for additions and alterations to a number of Council schools. The total estimated cost is £174,540.

*Bungalows, Scarborough.*

Scarborough Town Council have decided to proceed with works of improvement on the South Cliff, including the erection of twenty bungalows.

*Workshops, Edinburgh.*

The Edinburgh School Board have approved the plans for new workshops on a site at Bellevue. The estimated cost is £12,000.

*New Cathedral, Dublin.*

At a special meeting of the Dublin Corporation it was decided to dispose of the Ormond Market area to the Lord Archbishop of Dublin as a site for a Roman Catholic cathedral.

*Extension, Gosforth.*

The Newburn, Gosforth, and Castle Ward Joint Isolation Hospital Authority have agreed to accept the offer of the Duke of Northumberland to purchase 5,800 square yards of land adjoining the present hospital for the purposes of extension.

*Building Scheme, Selby.*

The Property Committee of the Selby Urban Council propose to submit a scheme to the Local Government Board for the erection of houses in Flaxley Road on land proposed to be purchased from the Earl of Londesborough.

*New School, Berwick.*

Berwick Town Council has come to an arrangement with Northumberland County Council whereby the latter has agreed to erect a new secondary school for both sexes in the burgh to supersede the present High School for Girls and the Grammar School. A fine site has been secured for the school in the Magdalene Fields.

*School, Musselburgh.*

On the application of Inveresk School Board, Musselburgh Dean of Guild Court have sanctioned plans for the erection of an elementary school in the grounds of Campie House, Musselburgh, to accommodate 750 pupils. Provision is made for subsequent convenient extension to accommodate 1,050 pupils.

*Building Schemes, Worcestershire.*

Under the instructions of the Local Government Board the Worcestershire War Relief Committee have drawn up a scheme of relief works which includes the following building operations: Bromsgrove, new schools in Watt Close and in Stourbridge Road; Malvern Council



Schools; new police station and court at Droitwich; new offices at the Shirehall. In the case of each of the school buildings a loan has been approved and work will be started as soon as possible.

#### *Sanatorium, East Grinstead.*

The Metropolitan Asylums Board has purchased from the East Grinstead Estate Company about 150 acres on the Felbridge Place Estate, on which it is proposed to erect a sanatorium to cost about £29,900. Sketch plans for the building have been approved and forwarded to the Local Government Board and these are still under consideration.

### LIST OF COMPETITIONS OPEN.

DECEMBER 31.—WORKMEN'S HOUSES, DUMFRIES.—The Town Council of Dumfries invite architects to submit designs for the erection of workmen's houses in the burgh. Particulars, Town Clerk, Town Hall, Dumfries.

[Members and Licentiates of the R.I.B.A., and Members of the Society of Architects, have been advised that negotiations are in progress with a view to amendment of the conditions of this competition.]

JANUARY 23, 1915.—WORKMEN'S HOUSES, DONCASTER.—The Town Council of Doncaster invite designs for the lay-out of a site of about twenty acres at Carr House and the erection of 102 workmen's houses on four acres thereof on garden city lines. Particulars from R. A. H. Tovey, Town Clerk, Doncaster.

FEBRUARY 8, 1915.—WORKMEN'S DWELLINGS, CITY OF LIVERPOOL.—The Corporation of Liverpool invite designs for workmen's dwellings to accommodate about 500 persons, to be erected on the Rathbone Street area. Premiums of £100, £50, and £25 are offered, and the Council have appointed Mr. Henry Hartley, F.R.I.B.A., as assessor. Particulars (£1 is., returnable) from Mr. Edward R. Pickmere, Town Clerk, Municipal Offices, Liverpool.

MARCH 31, 1915.—STREET PLANNING, BRADFORD.—The Corporation of Bradford invite competitive designs for the re-planning of streets in the central area of the city. Mr. Reginald Blomfield, R.A., will act as assessor. Particulars (£1 is., returnable) from Frederick Stevens, Town Clerk, Town Hall, Bradford.

### TRADE AND CRAFT.

#### *Fire-Resisting Doors.*

In all well-devised schemes of fire protection arrangements are made by which, should a fire occur, it may be confined within the narrowest possible limits. Where there are groups of buildings these are divided into sections by fire doors, and the floors of fireproof buildings are cut off from each other. If the fire doors are efficient the effect is to divide the premises into a number of what may be termed fire-tight compartments, a provision which, from its recognised value in preventing the spread of a fire from one compartment to another, procures considerable reductions in insurance premiums. At one time all fire doors were constructed of iron or steel only, but the repeated failure of this type of door when subjected to a fierce fire led to the introduction of the armoured or steel-sheathed wooden door. The record of this type of door has been so good that such doors are accepted as satisfactory "cut-offs" by all British and most Continental fire insurance companies.

Messrs. Mather and Platt, Ltd., of Park Works, Manchester, who are very extensive manufacturers of fire-resisting doors and apparatus for automatic closing in case of fire, have just issued a new catalogue of such appliances. In a very compact form the catalogue presents a large amount of information on the subject of fire doors, and gives prices of various types, such as the armoured sliding, armoured hinge, armoured folding, and Mather and Platt's own patent "Stryp" fire door. The "Stryp" fire door is of a thinner and more ornamental type than the armoured door. It is constructed of steel sheets and asbestos and is on the sliding principle. The manufacturers state that temperature may be raised to white heat on one face only, or on both, without causing serious distortion. Moreover, if whilst it is in this condition a powerful stream of water from a hose-pipe is directed upon it and the metal is suddenly cooled, the door will still lie flat against the wall. The illustration below shows one of Mather and Platt's armoured sliding doors, fitted with attachments for self-closing in case of fire.

In their new catalogue, Messrs. Mather and Platt give illustrations showing the

remarkable efficiency of the fire doors manufactured by them. Views are given of the interiors of various premises entirely burnt out, but with the fire-resisting doors standing intact and preventing the spread of the fire to the adjoining premises.

This useful and interesting list will be forwarded by Messrs. Mather and Platt to anyone interested in the important subject with which it deals.

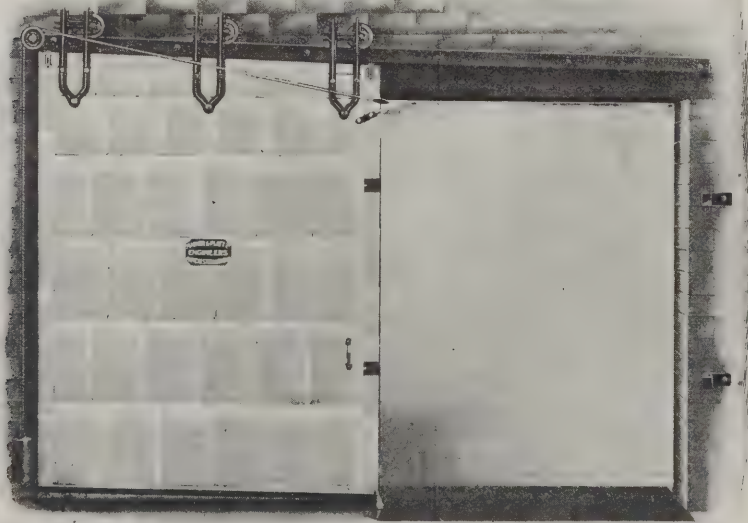
#### *Hospital Ventilation.*

The Barrow-in-Furness Infectious Diseases Hospital is being supplied with Shorland's warm-air ventilating plant. Manchester stoves, by Messrs. E. H. Shorland and Brother, Ltd., of Failsworth, Manchester.

### THE ARMY BUILDINGS ON SALISBURY PLAIN.

In an article in "The Empire Review" on the career of Sir John Jackson, the writer gives some interesting particulars of the huge work of erecting hutments for the troops at Salisbury Plain and elsewhere. He says: "As soon as the War broke out Sir John offered his own services and the Government accepted him as the head of the entire staff of his firm to the War Office. The offer was immediately accepted by Lord Kitchener, who appointed Sir John's firm to the position of Superintending Engineers to the War Department immediately under Major-General Sir Moncrieff, Inspector-General of Fortifications. The work comprised the erection of quarters for the Colonial troops on Salisbury Plain, and for the Home troops at Grantham and Purfleet; as well as making provision for the Remount Depot which the Government decided to erect at Orkney."

"Salisbury Plain is the largest of the undertakings. The whole district has been practically transformed. Villages have suddenly appeared where hardly a cottage existed before, and a town is in process of construction that, when finished, will accommodate, it is said, eight times the number of the inhabitants of Salisbury itself. Although a considerable part of the work has been finished and many of the colonial troops are comfortably housed, much remains to be done, and huts are still going up at the rate of 200 a week. Some idea of the magnitude of the task to be performed may be gathered from the fact that apart from the quarters for Home troops, huts have to be erected to accommodate some 60,000 men for Canada, Australia, New Zealand and Newfoundland, and stabling for not less than 15,000 horses, besides all the accessories of a fixed encampment such as one is familiar with at Aldershot. A special water supply involving a new pumping-station at Netley, and a new electric-light installation provided. Not the least engineering achievement in connection with the Salisbury Plain work was the rapid construction of the four and a half miles of railway from Amesbury siding to the camp. The line crosses the River Avon and the marshy lands adjoining by means of a girder bridge of latticed steel 140 ft. long, and in some instances the piles were driven 50 ft. deep. But notwithstanding these and other obstacles to be encountered—the girders were brought down from the North of England—the bridge was completed within a fortnight from the time starting the work and four days later traffic was running. A similar rapidity of construction was done at Grantham where in three and a half days a bridge line of two and a half miles was laid."



AUTOMATIC FIRE-RESISTING DOOR.









BUILDINGS IN THE WAR ARE  
J. POE





*Photo: W. A. Mansell & Co.*

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BUILDINGS IN THE WAR AREA. I.—ANTWERP CATHEDRAL.







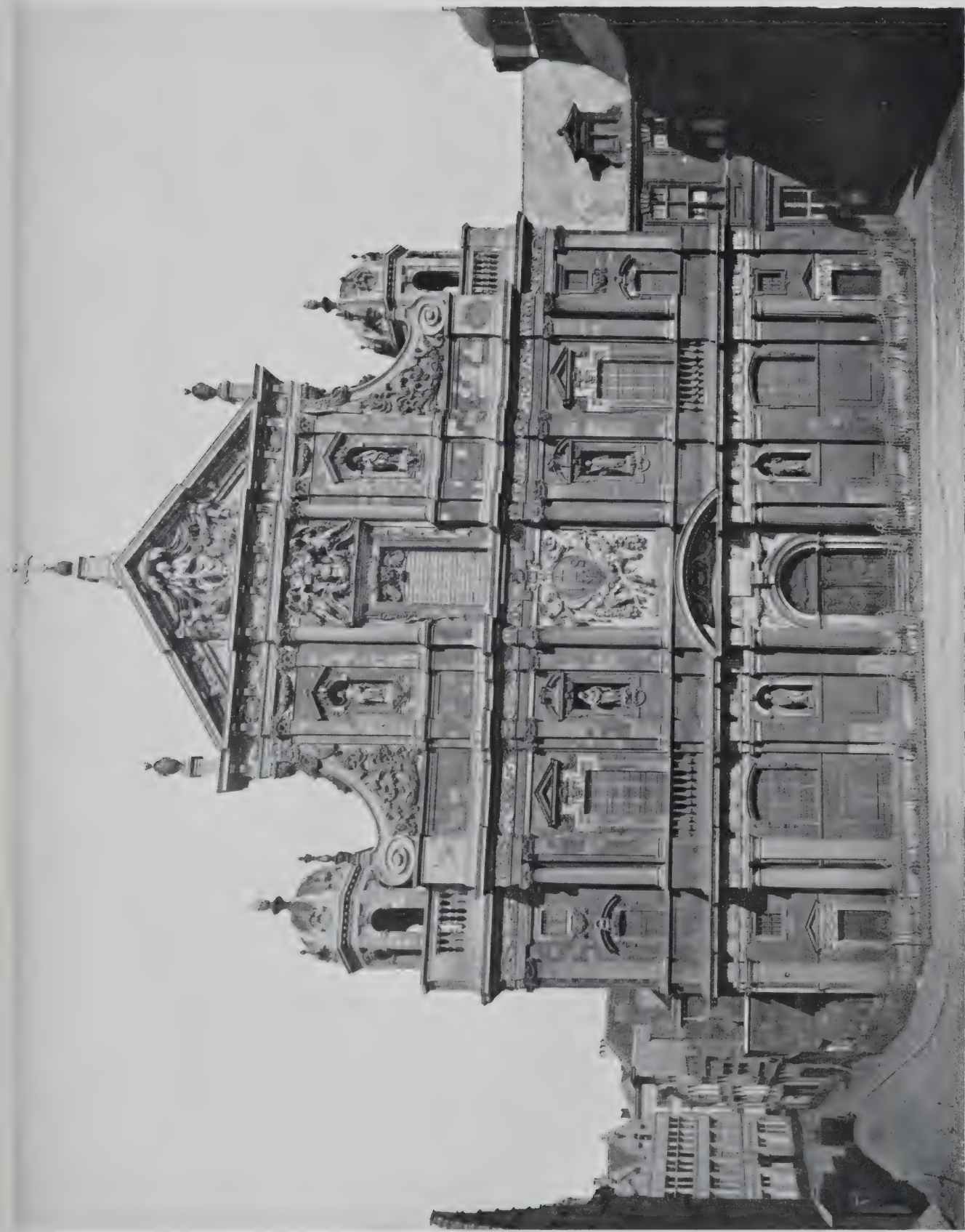


Photo: W. A. Mousell & Co.

BUILDINGS IN THE WAR AREA. II.—CHURCH OF ST. CARLO BORROMEO, ANTWERP.









Photo: H. A. Mansell & Co.

BUILDINGS IN THE WAR AREA. III.—CHURCH OF ST. PIERRE, LOUVAIN.









BUILDINGS IN THE WAR AREA. IV.—THE CLOTH HALL, YPRES.







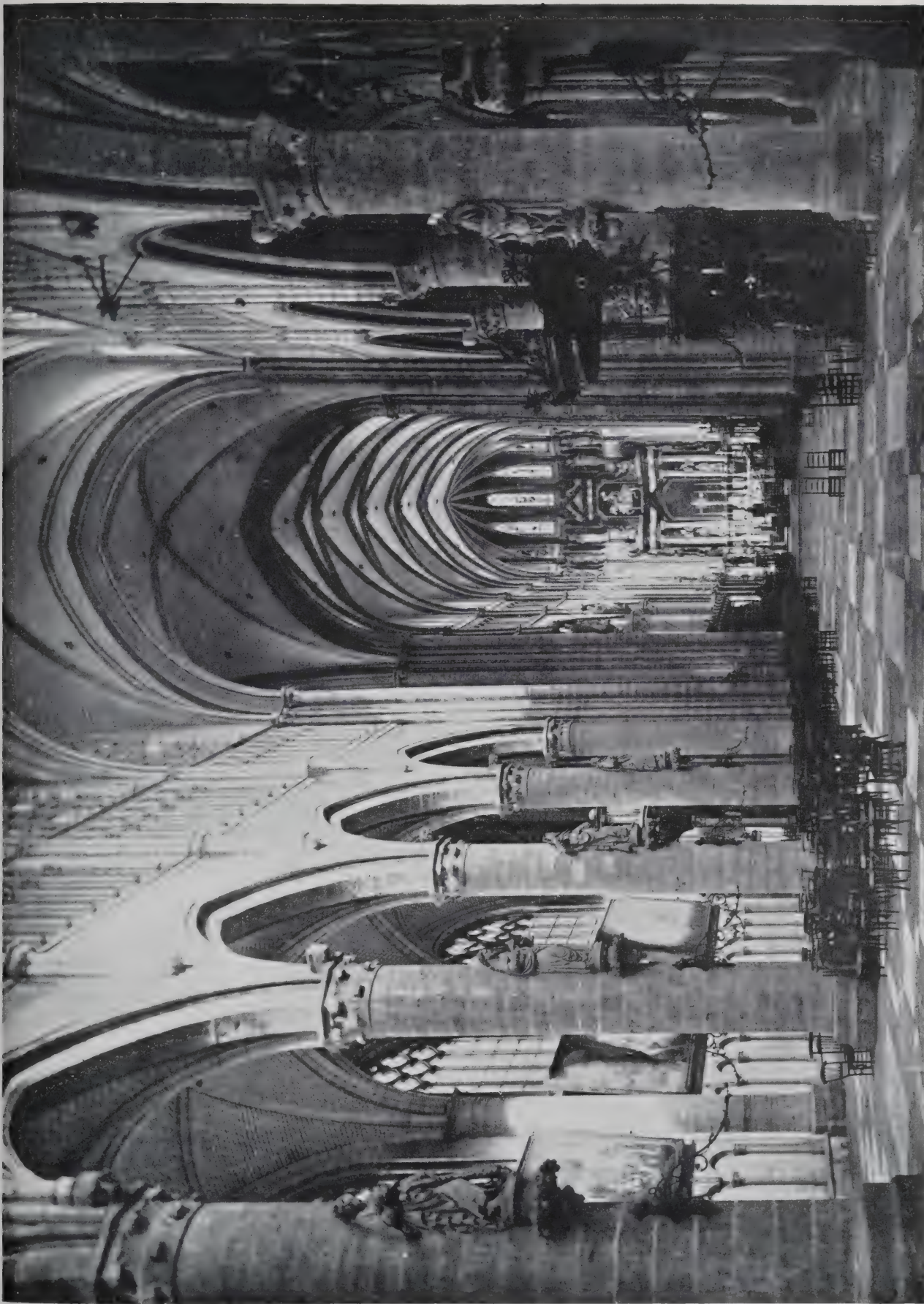


Photo: H. A. Mansell & Co.

BUILDINGS IN THE WAR AREA. V.—CATHEDRAL OF ST. MARTIN, YPRES: INTERIOR LOOKING EAST.









BUILDINGS IN THE WAR AREA. VI. - OLD HOUSES, QUAI AUX HERBES, GHENT.









*Photo: W. A. Mansell & Co.*

BUILDINGS IN THE WAR AREA. VII.—CHURCH OF NOTRE DAME, HUY.









Photo: F. R. Yerbury.

BUILDINGS IN THE WAR AREA. VIII.—BRUGES, FROM THE QUAI VERT.









Photo: W. A. Mansell & Co.

BUILDINGS IN THE WAR AREA. IX.—HOTEL DE VILLE, BRUGES.









Photo: G. A. T. Middleton.

BUILDINGS IN THE WAR AREA. X.—THE CLOTH HALL, MALINES.









Photo: Neurdein.

BUILDINGS IN THE WAR AREA. XI. - CHURCH OF ST. JACQUES, LIÈGE: INTERIOR, LOOKING WEST.









BUILDINGS IN THE WAR AREA. XII.—HOTEL DE VILLE, ANTWERP: CENTRAL FEATURE OF MAIN FAÇADE.









BUILDINGS IN THE WAR AREA. XIII.—REIMS CATHEDRAL: INTERIOR, LOOKING WEST.







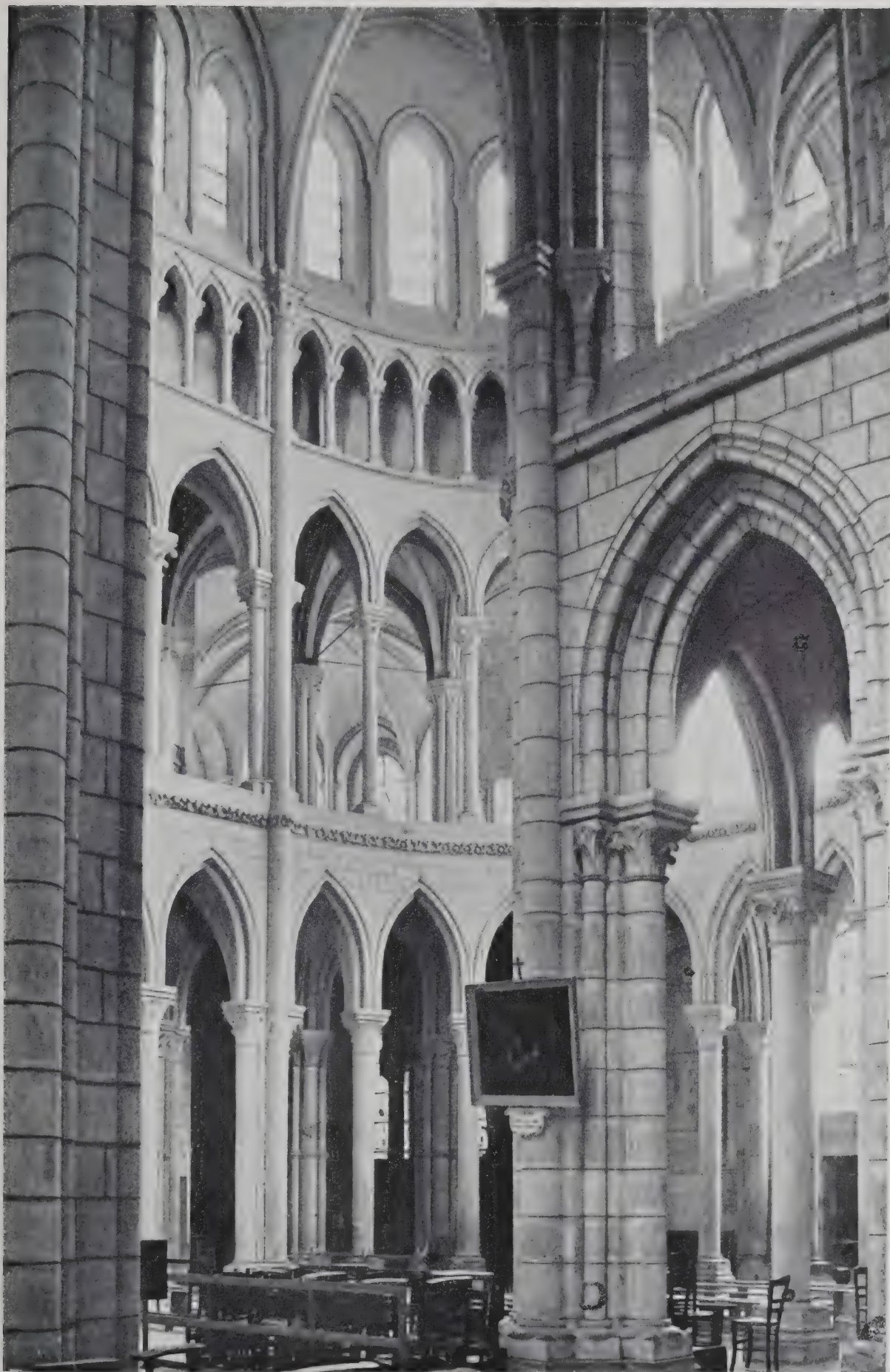


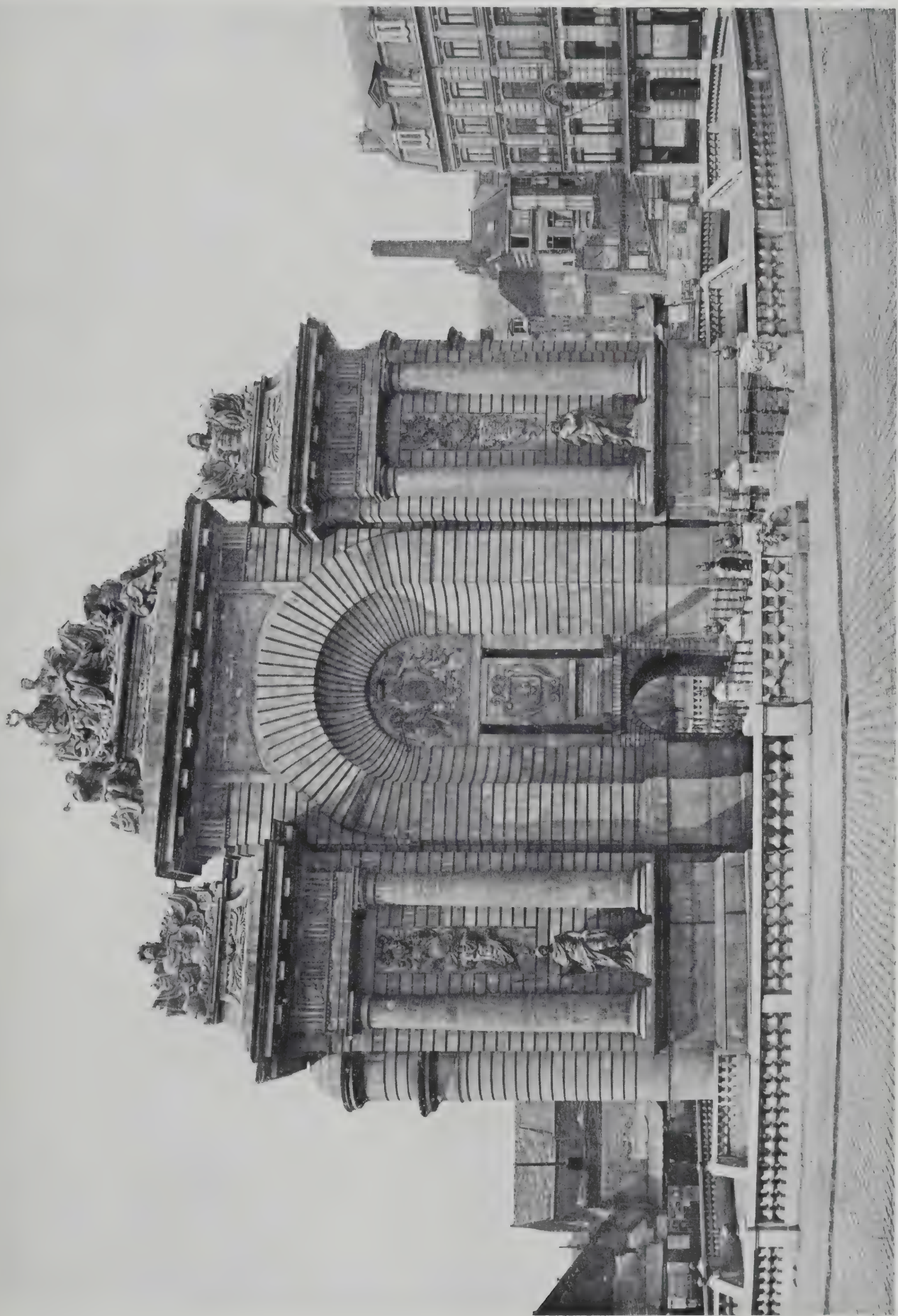
Photo: G. A. T. Middleton.

BUILDINGS IN THE WAR AREA. XIV.—SOISSONS CATHEDRAL: SOUTH TRANSEPT.









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SIMON VOLLANT, ARCHITECT.









BUILDINGS IN THE WAR AREA. XVI. PALAIS DE JUSTICE. BRUSSELS: GRAND STAIRCASE.  
J. POELAERT, ARCHITECT.







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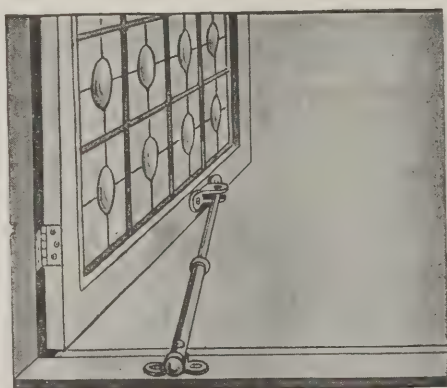
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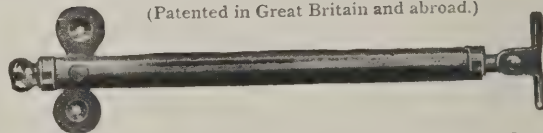
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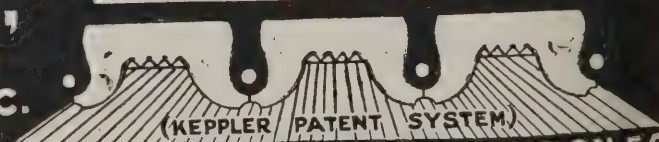
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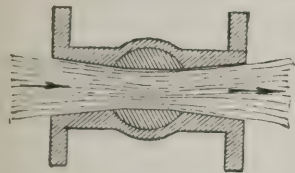
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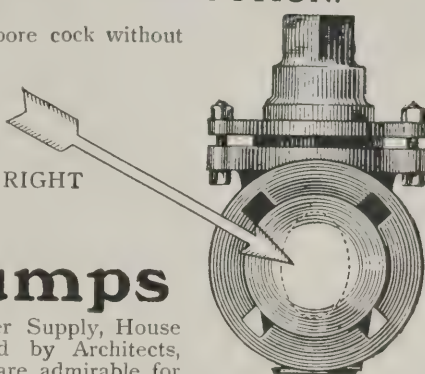
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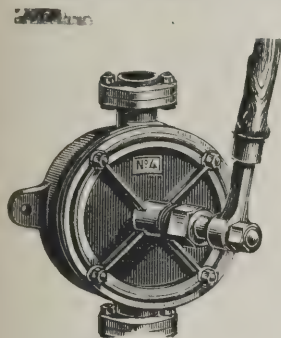
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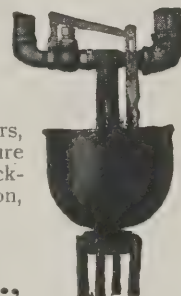
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## BUILDING.

December 31.—**LAUNDRY, ETC. Uxbridge.**—Erection of laundry building at their hospital, Yeading Lane, Hayes, Middlesex, for the Uxbridge Joint Hospital Board; also repairs and painting at hospital. Particulars with William L. Eves, Board's Surveyor, 54, High Street, Uxbridge.

December 31.—**DWELLINGS. Brancaster.**—Erection of six dwellings for the working classes at Brancaster, for the Docking R.D.C. Particulars from J. A. Stoughton, Clerk, Fakenham, Norfolk, on deposit of £1 1s.

December 31.—**BUILDINGS. Kingston-upon-Thames.** Erection of permanent buildings of light construction for school clinics and tuberculosis dispensaries, for the Education and Public Health and Housing Committees of the Surrey C.C. Particulars at the Surveyor's Department, County Education Offices, Penrhyn Road, Kingston-upon-Thames.

December 31.—**INSTITUTE. Addlestone.**—Erection of a research institute at Addlestone, Surrey, for H.M. Office of Works. Particulars from D. N. Dyke, 47, Victoria Street, Westminster, S.W., on deposit of £1 1s.

December 31.—**DISPENSARY, ETC. Deptford.**—Erection of a relief station and dispensary at Watson Street, Deptford, for the Guardians of Greenwich Union. Particulars from A. Roberts, Board's Architect, 92, London Street, Greenwich.

December 31.—**EXTENSIONS. Grimsby.**—Extensions and additions to workhouse and infirmary buildings,

Scartho Road, Grimsby, for the Guardians. Particulars with Herbert C. Scaping, Architect, Court Chambers, Grimsby, on deposit of £3 3s.

January 1.—**STAIRCASE. Shrewsbury.**—Supply and erection of fire escape staircase and small structural alterations at Belle Vue House, Trinity Street, Shrewsbury, for the Atcham Guardians. Particulars with Frank H. Shayler, Architect, 16, Pride Hill, Shrewsbury, on deposit of £2 2s.

January 1.—**POST OFFICE. Northwich.**—Erection of a post office at Northwich, Cheshire, for H.M. Office of Works. Drawings and specification with the Postmaster, Northwich, and quantities and forms of tender from the Secretary, H.M. Office of Works, etc., Storey's Gate, London, S.W., on deposit of £1 1s.

January 4.—**IMPROVEMENTS. Nottingham.**—Erection of w.c.'s, washhouses, and other improvements to Properties in Windsor Street, William Street, Cumberland Street, and Union Road, for the City Estates Committee. Plans, specifications, etc., from A. Dale, City Architect, Guildhall, on deposit of £1 1s.

January 4.—**PAVILION. Liscard.**—Erection of a phthisis pavilion at Mill Lane Hospital, Liscard, for the Wallasey Corporation. Particulars from the office of the Borough Engineer and Surveyor, 18, Falkland-road, Egremont, Wallasey, on deposit of £1 1s.

January 4.—**ADDITIONS. Bradford.**—Additions at Lorne Street School, for Bradford Corporation. Particulars from the City Architect, Town Hall, Bradford.

January 4.—**EXCAVATING, ETC. Cudworth.**—Excavating and concreting for steel gasholder tank at Gasworks, for Cudworth U.D.C. Particulars with W. T. Lynam, Gasworks, Cudworth, or Thomas Newbigging and Son, Engineers, 5, Norfolk Street, Manchester.

January 4.—**THIRTY-SIX DWELLINGS. Kingstown.**—Erection of thirty-six artisans' dwellings at Sallynoggin, for the Kingstown, Ireland, U.D.C. Particulars from J. Sherlock Vaughan, Town Clerk, Town Hall, Kingstown, on deposit of £2 2s.

January 5.—**EXTENSION. Southend-on-Sea.**—Extension to Retort House at Leigh Gas Works, for Southend Corporation. Particulars from Ernest J. Elford, Municipal Buildings, Southend-on-Sea, on deposit of £2 2s.

January 5.—**RESIDENCE. Bradford.**—Erection of medical officer's residence at City Hospital, Bierley Hill, for Bradford Corporation. Particulars from the City Architect, Town Hall, Bradford.

January 5.—**EXTENSION. Southend-on-Sea.**—Extension to existing retort house at Leigh Gas Works, for the Southend-on-Sea Corporation. Particulars from Ernest J. Elford, Engineer, Municipal Buildings, Southend, on deposit of £2 2s.

January 5.—**BRIDGE, High Wycombe.**—Construction of a ferro-concrete bridge on the Hennebique system, and the laying a sewer on surface-water drain, for the Corporation. Particulars with T. J. Rushbrooke, Borough Engineer and Surveyor, Easton Street, High Wycombe. Deposit £1 1s.

Contracts continued on page x.

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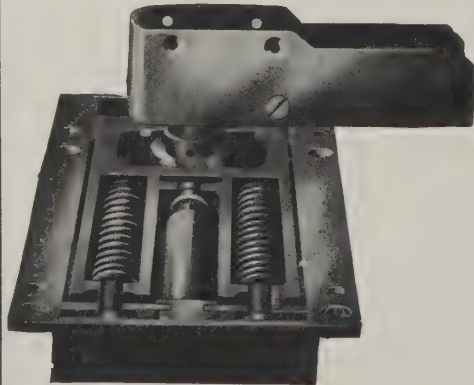
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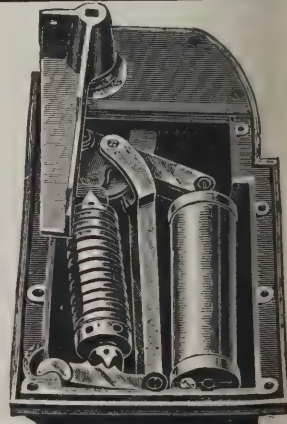
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January 1.—**DUST DESTRUCTOR.** Battersea.—Erection of a new dust destructor, for the Battersea B.C. Specifications and form of tender from W. M. Wilkins, Town Clerk, Town Hall, Battersea.

**SANITARY ENGINEERING.**

January 4.—**SEWAGE WORKS.** Manchester.—Supply and erection of "Venturi" meters, cast-iron pipes, etc., in extension of Davyhulme Sewage Works, for Manchester City Council. Particulars with Secretary, Rivers Department, Town Hall, Manchester, on deposit of £3 3s.

January 13.—**DRAINS.** Enfield.—Drainage and sanitary work at Chase Farm Schools, Enfield, for the Edmonton Guardians. Particulars from J. C. S. Mummery, 13, Fitzroy Square, W.

**PAINTING.**

January 5.—**PAINTING.** Islington.—Painting, etc., at Relief Offices and Dispensary, Barnsbury Street, Liverpool Road, N., for the Guardians of St. Mary, Islington. Particulars from Edmund J. Harrison, Architect, 9, Gray's Inn Square, W.C., on deposit of £2.

**ROADS & CARTAGE.**

December 31.—**MATERIALS.** Wiltshire.—Supply of road material, and cartage, for one year, for the Wiltshire C.C. Particulars from County Surveyor, County Building, Mold.

**Tenders.**

Information from accredited sources should be sent to "The Editor," at latest by noon on Saturday if intended for publication in the following Wednesday's issue. Results of Tenders cannot be accepted unless they contain the name of the Architect or Surveyor for the work.

**Leicester.**—Erection of Syston handicraft centre for the C.C.E.C. Ernest Fowler, Architect and Surveyor to the E.C., 33, Bowling Green Street, Leicester.

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**Lydney (Glos.).**—Erection of Lydney Senior Council School for the Gloucestershire E.C. R. S. Phillips, Architect to the E.C.

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| Orchard and Peer, Stroud        | 4,333  |
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| John Dallow and Son, Birmingham | 4,198  |
| W. T. Nicholls, Gloucester      | 4,188  |
| W. J. B. Halls, Gloucester      | 4,119  |
| Collins and Godfrey, Tewkesbury | 4,082  |
| William Jones, Gloucester       | 4,000  |
| Bowers and Co., Hereford        | 3,976  |
| Wm. P. Lewis and Co., Hereford  | 3,920  |
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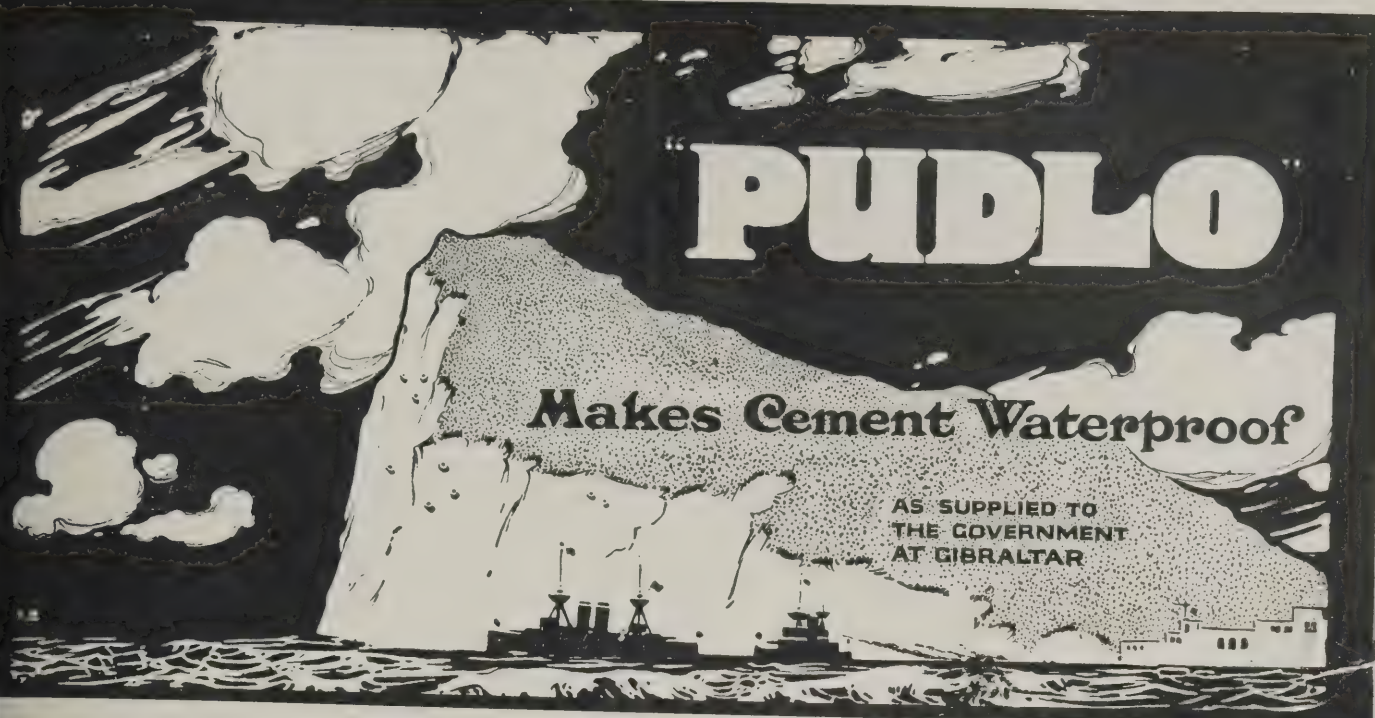
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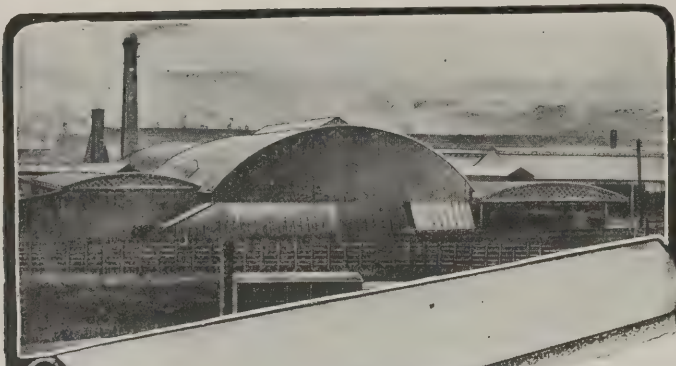
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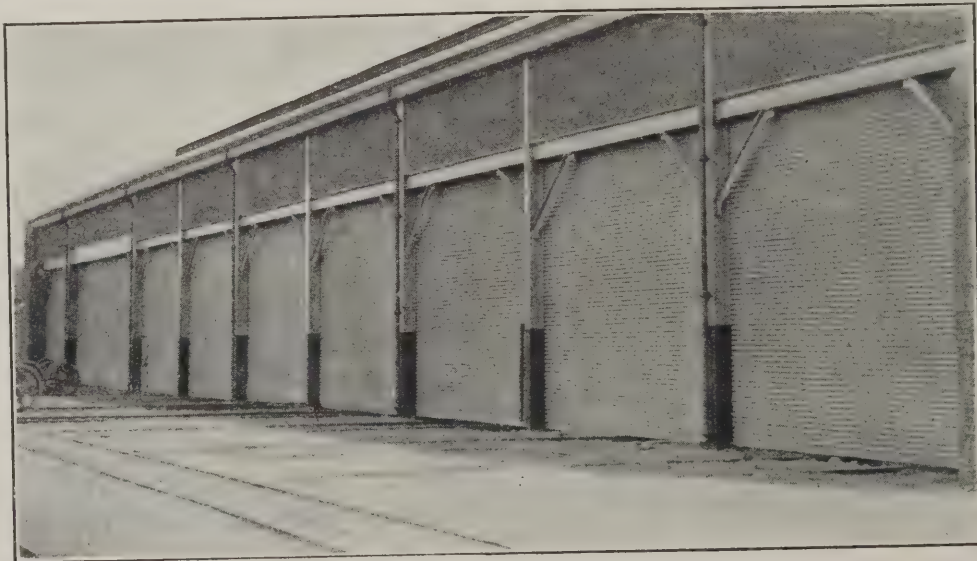
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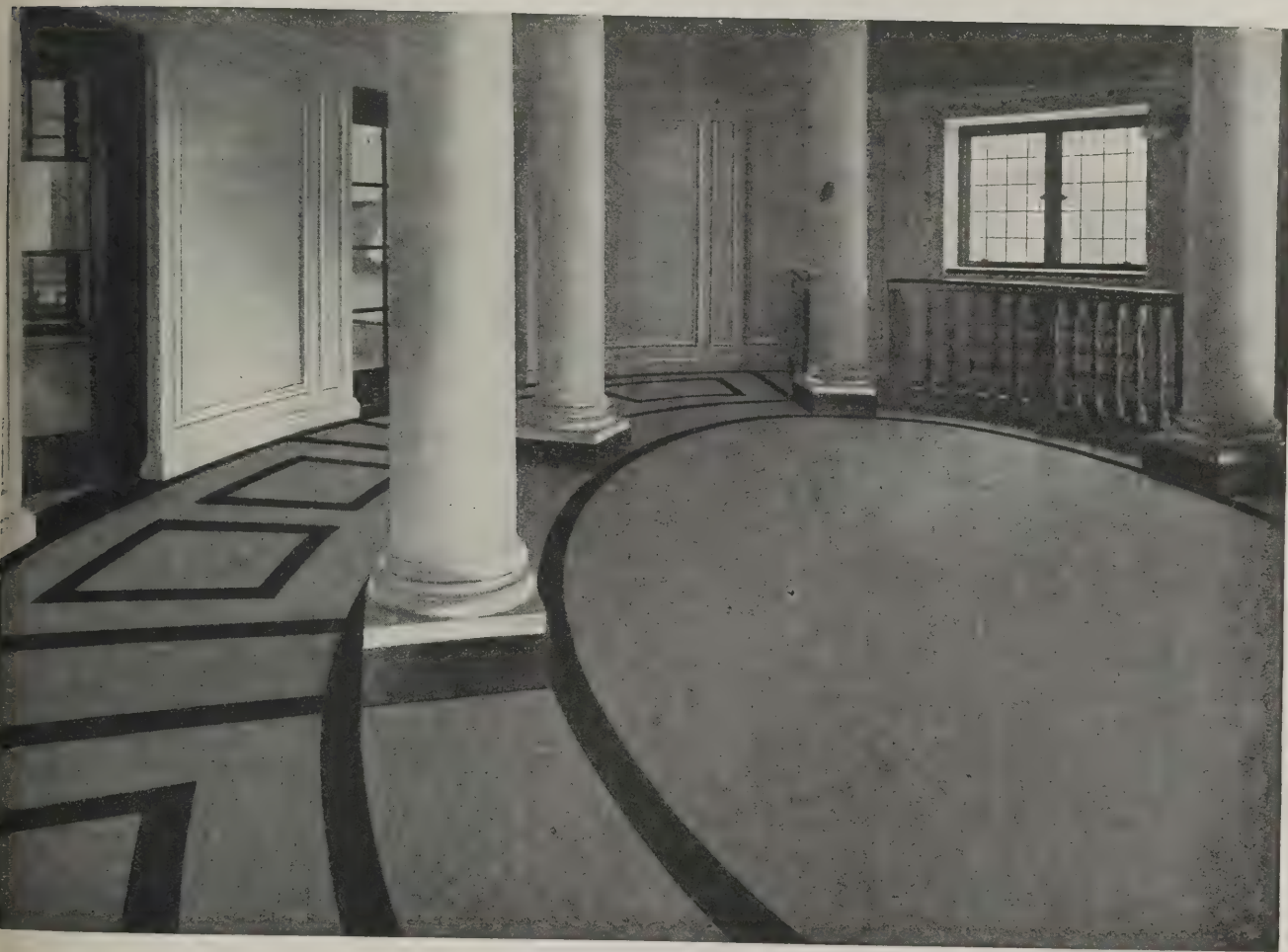
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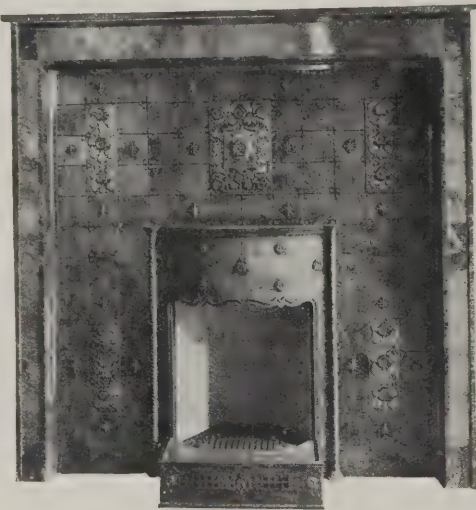


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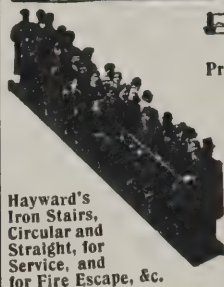
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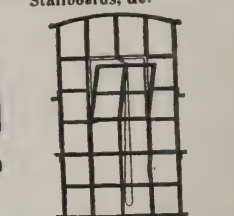
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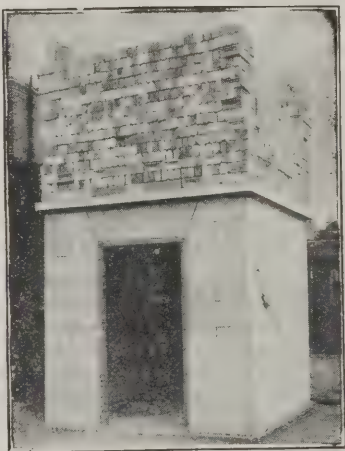
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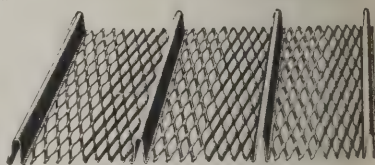


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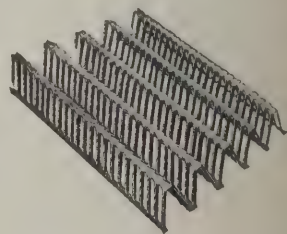
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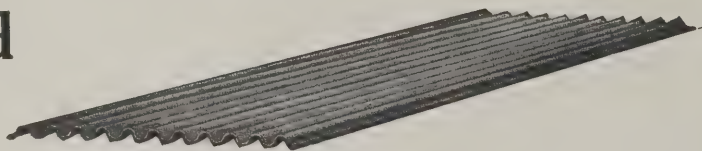
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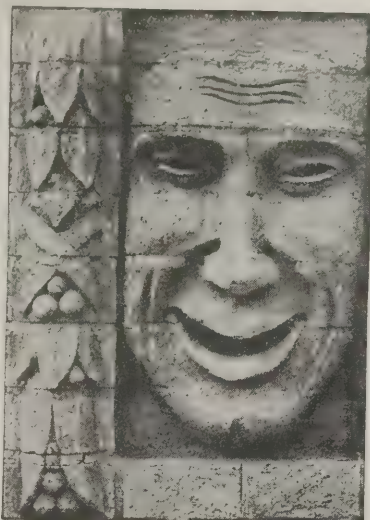
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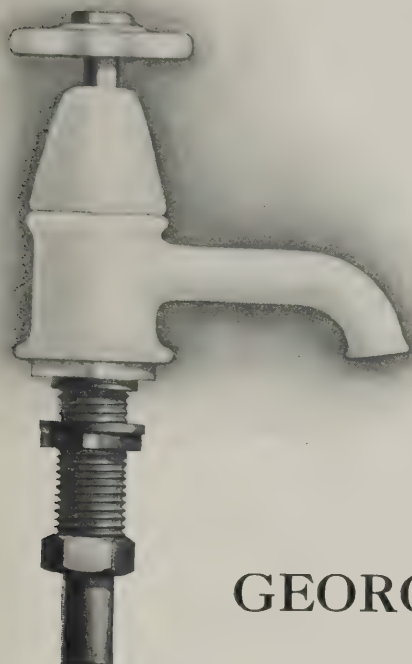


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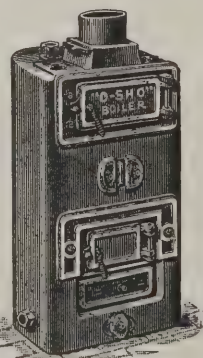
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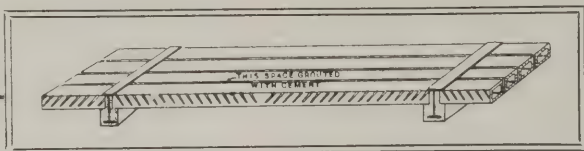
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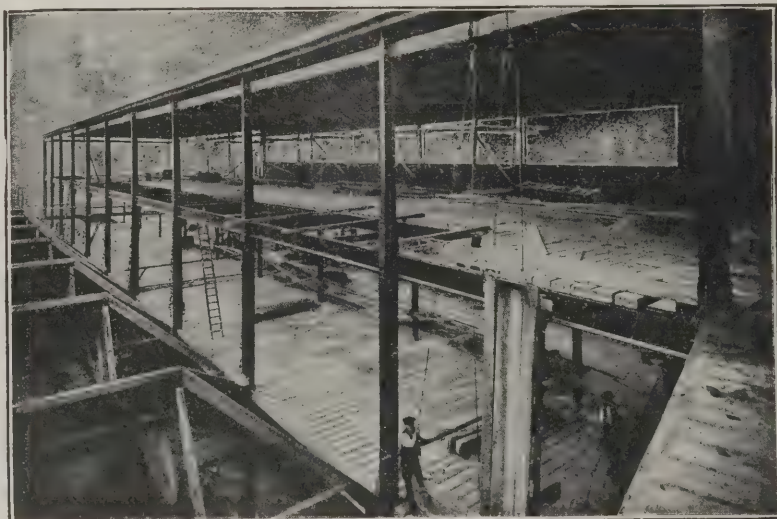
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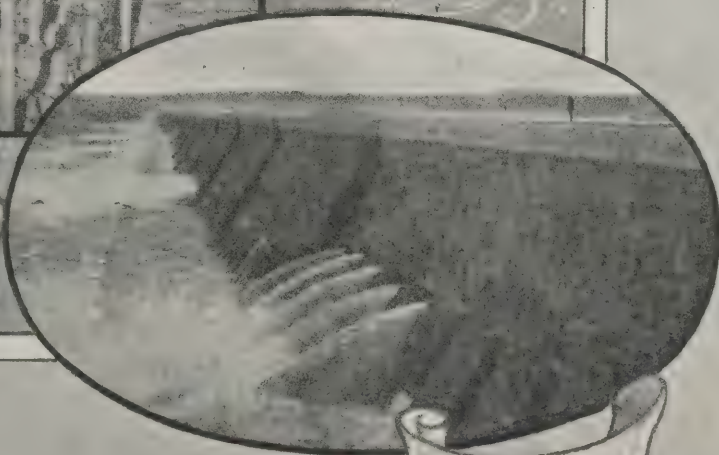
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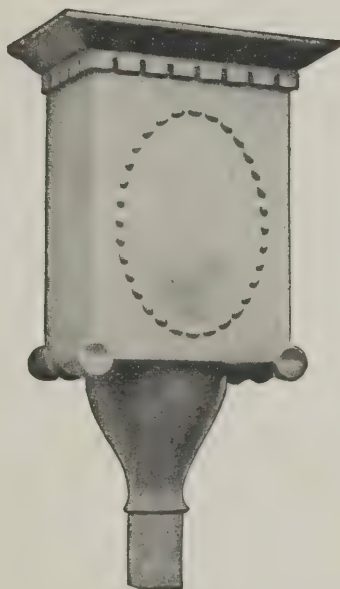
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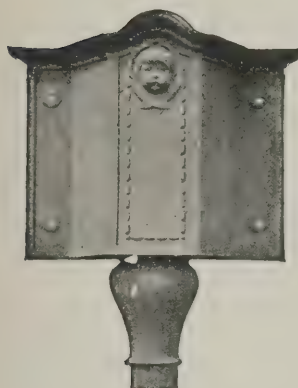
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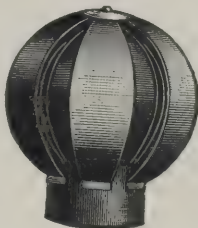
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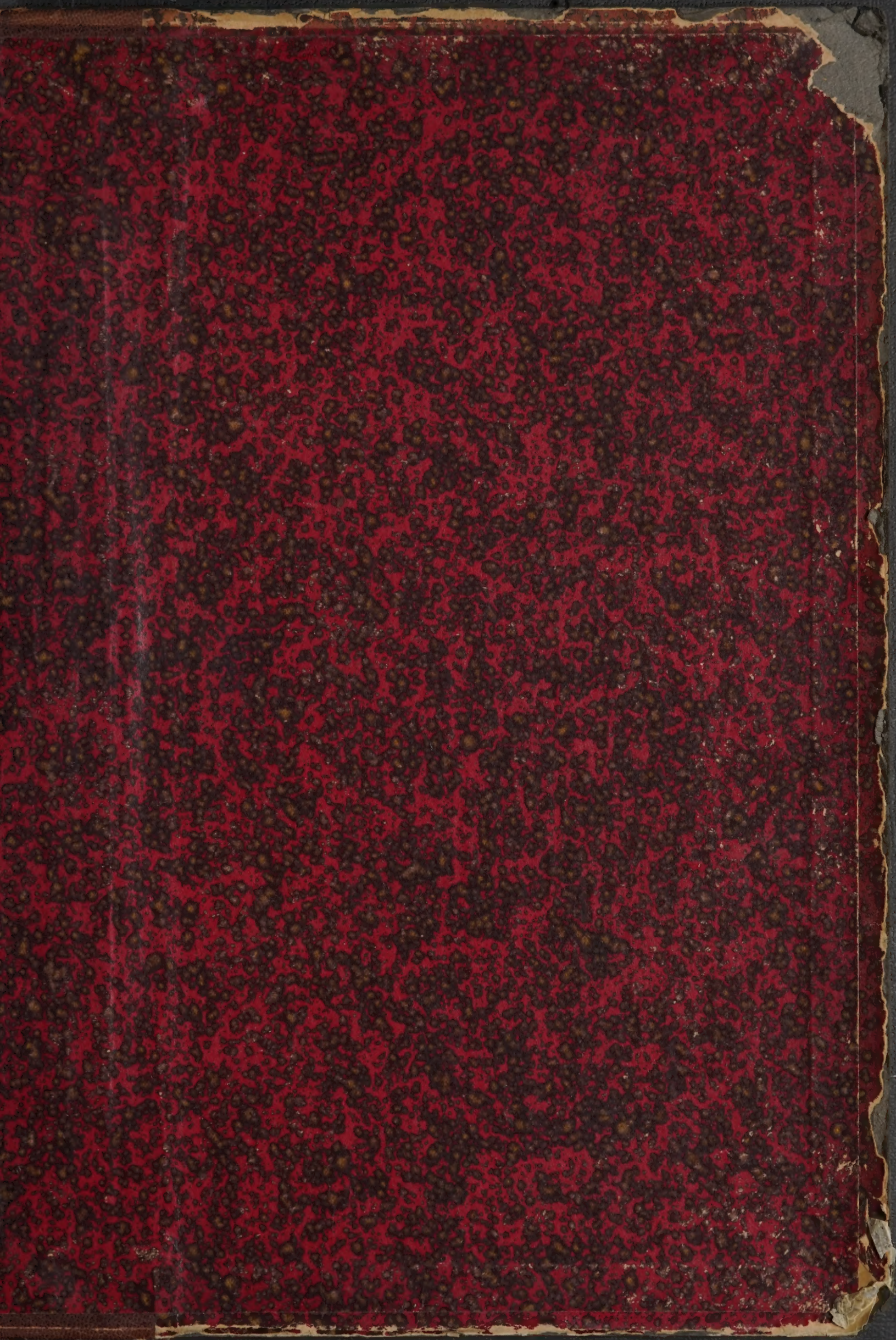






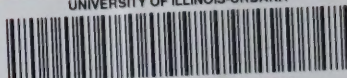








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